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# THE PLANT DISEASE REPORTER

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PLANT DISEASE EPIDEMICS
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A CHECK LIST OF NORTH AMERICAN RUST FUNGI (UREDINALES)

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## THE PLANT DISEASE REPORTER

## PLANT DISEASE EPIDEMICS AND IDENTIFICATION SECTION

Horticultural Crops Research Branch

Plant Industry Station, Beltsville, Maryland

## A CHECK LIST OF NORTH AMERICAN RUST FUNGI (UREDINALES)1

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## INTRODUCTION

The International Rules of Botanical Nomenclature, previous to the Stockholm Congress of 1950, were ambiguous as to what constituted the basis for setting up names for the rust fungi (Uredinales). The 1935 edition of the Rules states (Art. 57) that "The perfect state is that . . . . . . which ends in the teleutospore or its equivalent in the Uredinales." There was a diversity of opinion as to whether the uredial stage was to be considered as "the equivalent" of the telial stage for the purposes of establishing legitimate names for the rust fungi.

This situation was cleared up by the Stockholm Congress of 1950 which adopted the following wording which appears in Article 69 of the International Code of Botanical Nomenclature (1952) "The perfect state is that which consists of spores giving rise to basidia in the Uredinales." This rule definitely relieves <u>Uredo</u> names of any responsibility in the setting up of valid perfect state names for the rust fungi. No basic changes were made in this rule by the 8th Congress at Paris in 1954.

Inasmuch as many of the names heretofore applied to the rust fungi of North America have been in fact based on <u>Uredo</u> names, or other imperfect state names, it seems desirable to present a list of names which conform, to the best of our belief, to the provisions of the Code regulating such names.

It is of interest to note that similar steps have been taken for the rust fungi of the Scandinavian countries by Hylander,  $J\phi$ rstad and Nannfeldt (Enumeratio Uredinearum Scandinavicarum. Opera Botanica Vol. 1, No. 1. 1953). We have made free use of their publication in the present paper, since a number of the species occur in both areas.

In the list which follows, we have attempted to account for all rust species recognized in "North American Flora" and "The Manual of Rusts of the United States and Canada", as well as all species which have been reported for North America since the publication of these works.

Recognized names are given in caps and where these names are not those used in the two works just cited, explanations for the proposed changes are given. Only pertinent synonyms are cited. Distribution and hosts are given for species not covered in "North American Flora" or the "Manual."

We wish to acknowledge much helpful advice received from Dr. Donald P. Rogers, Curator, New York Botanical Garden, on the nomenclatorial problems involved in preparing this list.

<sup>1</sup> Cooperative investigations between the Purdue University Agricultural Experiment Station and the Plant Disease Epidemics and Identification Section, Horticultural Crops Research Branch, Agricultural Research Service, United States Department of Agriculture. Journal Paper No. 996, of the Purdue University Agricultural Experiment Station. Contribution from the Department of Botany and Plant Pathology.

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### NOTES

- 1: Under the provisions of Art. 69 of the International Code, as quoted in the introduction, a binomial for a perfect state (telial) is set up "de novo" without reference to any corresponding earlier imperfect state epithet. Thus, for instance, to take the first example in the list, the epithet Achrotelium lucumae is correctly attributed to Cummins alone and not to (Arth. et J. R. Johnston) Cumm. which would indicate a transfer from the Uredo name. Many similar cases will be noted throughout this list.
- 2: A single asterisk (\*) indicates a new record for the United States and Canada. Not listed in Arthur's Manual.
- 3: A double asterisk (\*\*) indicates a new record for North America, other than the United States or Canada. Not listed in North American Flora.

### CHECK LIST OF NORTH AMERICAN RUST FUNGI

\*ACHROTELIUM LUCUMAE Cumm. Mycologia 48: 601. 1956.

Uredo lucumae Arth. et J. R. Johnston Mem. Torr. Bot. Club 17: 169. 1918. See NOTE 1, page 110.

Uraecium lucumae Arth. Bull. Torr. Bot. Club 60: 467. 1933.

Achrotelium lucumae Cumm. Bull. Torr. Bot. Club 67: 70. 1940. Nomen nudum.

On Lucuma nervosa A. DC.: Florida.

AECIDIUM ABSCEDENS Arth. Mycologia 7: 315. 1915.

Aecidium aesculi Ell. et Kell.: See PUCCINIA ANDROPOGONIS Schw.

AECIDIUM ALBICANS Arth. et Holw. in Arth. Mycologia 10: 146. 1918.

AECIDIUM AMPLIATUM Jacks. et Holw. in Arth. Mycologia 10: 148. 1918.

AECIDIUM ANOGRAE Arth. Bull. Torr. Bot. Club 28: 664, 1901.

AECIDIUM ANONAE P. Henn. Hedwigia 34: 100. 1895.

AECIDIUM ANTHERICICOLA Arth. Bull. Torr. Bot. Club 45: 149. 1918.

Aecidium apocyni Schw.: See PUCCINIA SMILACIS Schw.

\*\*AECIDIUM ARCHIBACCHARIDIS Cumm. Bull. Torr. Bot. Club 68: 471. 1941. On Archibaccharis serratifolius (H. B. K.) Blake: Guatemala.

Aecidium arctoum Arth.: See PUCCINIA CARICIS-SHEPHERDIAE J. J. Davis

AECIDIUM ARCULARIUM Arth. Bull. Torr. Bot. Club 47: 478. 1920.

AECIDIUM ARGITHAMNIAE Arth. Bull. Torr. Bot. Club 33: 33. 1906.

\*AECIDIUM AVOCENSE, Cumm. et Greene in Greene Trans. Wis. Acad. Sci., Arts, Letters 43: 176. 1954.

On Callirhoe triangulata (Leavenw.) Gray: Wisconsin. (Probably the aecial stage of Puccinia avocensis Cumm. et Greene)

AECIDIUM BATESII Arth. Bull. Torr. Bot. Club 47: 479. 1920.

\*\*AECIDIUM BELIZENSE Mains Contrib. Univ. Mich. Herb. 1:14. 1939. On Ipomoea sp.: British Honduras.

AECIDIUM BETHELI Arth. Bull. Torr. Bot. Club 47: 476. 1920.

AECIDIUM BOEHMERIAE Arth. Bull. Torr. Bot. Club 34: 590. 1907.

AECIDIUM BORRERIAE Pat. ex Duss in Enum. Champ. Guad. p. 7. 1903.

AECIDIUM BORRICHIAE Syd. Hedwigia Beibl. 40: 129. 1901.

AECIDIUM BOURRERIAE Holw. ex Arth. Bull. Torr. Bot. Club 46: 123. 1919.

AECIDIUM BOUVARDIAE Diet. et Holw. in Holw. Bot. Gaz. 24: 36. 1897.

\*\*AECIDIUM BRASILIENSE Diet. Hedwigia 36: 35. 1897. On Cordia cana Mart. et Gal.: Honduras.

Aecidium butlerianum Rosen et Arth.: See CUMMINSIELLA TEXANA (Holw. et Long) Arth.

AECIDIUM BYRSONIMATIS P. Henn. Hedwigia 34: 101. 1895.

AECIDIUM CAMPANULASTRI G. W. Wils. Proc. Iowa Acad. 17: 74. 1911.

AECIDIUM CANNONII Griff. Bull. Torr. Bot. Club 34: 210. 1907.

\*\*AECIDIUM CANTENSE Arth. Bull. Est. Exp. Agr. Soc. Nat. Agr. Peru 2: 10. 1929.

On Solanum tuberosum L.: Honduras.

AECIDIUM CHAMAECRISTAE Arth. Bull. Torr. Bot. Club 46: 123. 1919.

\*\*AECIDIUM COLLAPSUM Mains Contrib. Univ. Mich. Herb. 1:15. 1939. On Wedelia parviceps Blake: British Honduras.

Aecidium collinsiae Ell. et Ev.: See PUCCINIA COLLINSIAE P. Henn.

AECIDIUM COLUMBIENSE Ell. et Ev. Erythea 1: 206. 1893.

AECIDIUM CONSPERSUM J. J. Davis Paras. Fungi Wis., p. 62. 1942. Aecidium sparsum J. J. Davis Trans. Wis. Acad. Sci. 24: 292. 1929. (non Hazl. 1874).

On Houstonia longifolia Gaertn. and Galium tinctorium L.: Wisconsin.

Aecidium conspicuum Arth.: See PUCCINIA CONSPICUA Arth.

AECIDIUM CORDIAE P. Henn. in Bres., P. Henn. et Magn. Bot. Jahrb. 17: 491. 1893.

AECIDIUM CYRILLAE Arth. Bull. Torr. Bot. Club 45: 150. 1918.

AECIDIUM DAHLIAE Syd. Ann. Mycol. 18: 155. 1920.

\*\*AECIDIUM DAHLIAE-MAXONII Cumm. Bull. Torr. Bot. Club 70: 69. 1943.
On Dahlia maxonii Saff.: Guatemala.

\*\*AECIDIUM DOMINGENSE Kern et Cif. Mycologia 22: 116. 1930.
On Baccharis myrsinites (Lam.) Pers.: Dominican Republic.

Aecidium dominicanum Gonz. Frag. et Cif.: See COLEOSPORIUM IPOMOEAE (Schw.) Burr.

\*\*AECIDIUM EVANSII P. Henn. Engler's Bot. Jahrb. 41: 272. 1908. On Lippia berlandierii Shau.: Mexico.

AECIDIUM FARAMEAE Arth. Bull. Torr. Bot. Club 42: 592. 1915.

AECIDIUM FAVACEUM Arth. Mycologia 7: 254. 1915.

\*\*AECIDIUM FUCHSIAE Jacks. et Holw. in Jacks. Mycologia 24: 97. 1932.
On Fuchsia minutiflora Hemsl.: Guatemala.

Aecidium graebnerianum P. Henn.: See PUCCINIA PRAEGRACILIS Arth.

AECIDIUM GUATEMALENSE Kern et Kell. Jour. Mycol. 13: 23. 1907.

AECIDIUM HESLERI Arth. Bull. Torr. Bot. Club 60: 476. 1933.

\*\*AECIDIUM HISPANIOLAE Kern, Cif. et Thurston Ann. Mycol. 31: 4. 1933. On Solanum rugosum Dunal: Dominican Republic.

AECIDIUM HUALTATINUM Speg. Bol. Acad. Cien. Cordoba 11: 184. 1888.

Aecidium indecisum Arth.: See PUCCINIA EATONIAE Arth.

AECIDIUM INSULSUM Arth. No. Amer. Flora 7: 637. 1924.

AECIDIUM IVAE Jacks. Ind. Acad. Sci. 1917; 373. 1918.

AECIDIUM IXORAE Arth. Bull. Torr. Bot. Club 47: 473. 1920.

AECIDIUM JACQUEMONTIAE Ell. et Ev. Jour. Mycol. 8:11. 1902.

AECIDIUM KEERLIAE Arth. Bull. Torr. Bot. Club 45: 154. 1918.

AECIDIUM LANTANAE Mayor Mem. Soc. Neuch. Sci. Nat. 5: 567. 1913.

Probably distinct from A. verbenae Speg. under which it is included in No. Amer. Flora.

ACIDIUM LEPORINUM Arth. Bull. Torr. Bot. Club 37: 578, 1910.

AECIDIUM LIABI Mayor Mem. Soc. Neuch. Sci. Nat. 5: 576. 1913.

AECIDIUM LIBERTUM Arth. Bull. Torr. Bot. Club 37: 580. 1910.

AECIDIUM LIGUSTICI Ell. et Ev. Bull. Torr. Bot. Club 11: 73. 1884.

AECIDIUM LINI Dearn. et House Bull. N. Y. State Mus. 179: 26. 1915.

AECIDIUM LORANTHI Thuem, ex Lorentz in Veg. Entre Rios, p. 3, 1878.

\*\* AECIDIUMLYCIANTHIS Cumm. Bull. Torr. Bot. Club 70: 68. 1943.
On Lycianthes quichensis (Coult. et D.Sm.) Bitter: Guatemala.

AECIDIUM LYCII Arth. No. Amer. Flora 7: 636, 1924.

AECIDIUM MESADENIAE, Arth. Bull. Torr. Bot. Club 47: 479. 1920.

AECIDIUM MEXICANUM Diet. et Holw. in Holw. Bot. Gaz. 24: 36. 1897.

AECIDIUM MIKANIAE P. Henn. Hedwigia 35: 261, 1896.

AECIDIUM MINUTULUM Jacks. ex Bartholomew in No. Amer. Ured. No. 3401, 1926.

AECIDIUM MIRABILIS Diet. et Holw. in Holw. Bot. Gaz. 24: 37. 1897.

AECIDIUM MITELLAE Ell. et Ev. Bull. Torr. Bot. Club 47: 475. 1920.

AECIDIUM MODESTUM Arth. Bull. Torr. Bot. Club 46: 124. 1919.

AECIDIUM MOZINNAE Arth. Bull. Torr. Bot. Club 45: 152. 1918.

AECIDIUM MUTUM Arth. No. Amer. Flora 7: 632. 1924.

Aecidium onobrychidis Burr.; See PUCCINIA ANDROPOGONIS ONOBRYCHIDIS Arth.

AECIDIUM PEREZIAE Arth. Bull. Torr. Bot. Club 45: 153. 1918.

AECIDIUM PHYSALIDIS Burr. Bot. Gaz. 9: 190. 1884.

AECIDIUM PISONIAE Arth. et J. R. Johnston Mem. Torr. Bot. Club 17: 161. 1918.

AECIDIUM PLENUM Arth. Bull. Torr. Bot. Club 45: 149. 1918.

AECIDIUM POASENSE Syd. Ann. Mycol. 23: 324. 1925.

Aecidium polygalinum Pk.: See PUCCINIA ANDROPOGONIS POLYGALINA Arth.

AECIDIUM PRAECIPUUM Arth. Bull. Torr. Bot. Club 47: 480. 1920.

AECIDIUM PSYCHOTRIAE P. Henn. Hedwigia 43: 166. 1904.

AECIDIUM PULVERULENTUM Arth, Bull, Torr, Bot, Club 33; 521. 1906.

AECIDIUM REICHEI Diet. Ann. Mycol. 12:85. 1914.

AECIDIUM RENATUM Arth, Bull. Torr. Bet. Club 47: 477. 1920.

AECIDIUM RESIDUUM Arth No. Amer. Flora 7: 622, 1924.

\*AECIDIUM RUBROMACULANS E. West Mycologia 33: 40. 1941. On Viburnum obovatum Walt.: Florida.

\*\*AECIDIUM SEBASTIANAE Mains Contrib. Univ. Mich. Herb. 1:15. 1939. On Sebastiana standleyana Lundell: British Honduras.

AECIDIUM SERIATUM Arth. et Holw. in Arth. in Amer. Jour. Bot. 5:541. 1918.

\*\*AECIDIUM SERJANIAE P. Henn. Hedwigia 35: 258. 1896.
On Serjania tailloniana Standl. & L. O. Williams: Honduras.

AECIDIUM SIMPLICIUS Arth. et J. R. Johnston Mem. Torr. Bot. Club 17:162. 1918.

Aecidium smilacis Schw.: See PUCCINIA ARUNDINARIAE Schw.

Aecidium sparsum J. J. Davis: See A. CONSPERSUM J. J. Davis

AECIDIUM STEVIICOLA Arth. Bull. Torr. Bot. Club 45: 154. 1918.

AECIDIUM SUBSIMULANS Arth. et Mains in Arth. Bull. Torr. Bot. Club 47: 475. 1920.

\*\*AECIDIUM TALINI Speg. Rev. Argent. Hist. Nat. 1: 399. 1891.
On Talinum triangulare (Jacq.) Willd.: Guatemala.

AECIDIUM TENERIUS Arth. et Holw. in Arth. Mycologia 10: 147. 1918.

AECIDIUM THENARDIAE Arth. Bull. Torr. Bot. Club 45: 150, 1918.

AECIDIUM THEVETIAE Sacc. Ann. Mycol. 11: 14. 1913.

AECIDIUM TITHYMALI Arth. Bull. Torr. Bot. Club 45: 151. 1918.

AECIDIUM TOURNEFORTIAE P. Henn. Hedwigia 34: 338. 1895.

AECIDIUM TRACYANUM Syd. Hedwigia Beibl. 40: 129. 1901.

AECIDIUM TRIOSTEI Arth. Bull. Torr. Bot. Club 33: 32. 1906.

AECIDIUM TRIUMFETTAE P. Henn. Hedwigia 35: 259. 1896.

\*AECIDIUM TURNERAE P. Henn. Hedwigia 43: 171. 1904. On Piriqueta caroliniana (Walt.) Urb.: Florida.

AECIDIUM VALERIANELLAE Biv. Stirp. Rar. Sic. 4: 28. 1816.

This is the aecial stage of <u>Puccinia gladioli</u> Cast. according to d'Oliveira in Nature 144: 239-240. 1949. The telial stage on <u>Gladiolus</u> is not known in North America.

AECIDIUM VERBENAE Speg. Anal. Soc. Cien. Argent. 9: 174. 1880.

The telial stage as Puccinia elongata Speg. 1880 (non Schroet. 1879) is not known in North America. See also A. lantanae Mayor

AECIDIUM WEDELIAE-HISPIDAE Diet. Ann. Mycol. 20: 294. 1922.

Aecidium xanthoxyli Pk.: See PUCCINIA ANDROPOGONIS XANTHOXYLI Arth.

\*\*AECIDIUM YUCATANENSE Mains Carnegie Inst. Wash. Publ. 461: 105. 1935.
On Hamelia patens Jacq.: Mexico.

Aecidium yuccae Arth.: See PUCCINIA AMPHIGENA Diet.

AECIDIUM ZEPHYRANTHIS Shear Bull. Torr. Bot. Club 29: 454. 1902.

AECIDIUM ZONATUM Sacc. Ann. Mycol. 11: 14. 1913.

Allodus: See PUCCINIA

Ameris rosicola (Ell. et Ev.) Arth.: See PHRAGMIDIUMROSICOLA (Ell. et Ev.) Arth.

ALVEOLARIA CORDIAE Lagerh. Ber. Deuts. Bot. Ges. 9: 346. 1891.

ANGIOPSORA AMPELOPSIDIS (Diet. et Syd.) Thirum. et Kern Mycologia 41: 288.

Uredo vitis Thuem. Pilze Weinst., p. 182. 1878. See NOTE l, p. 110. Phakopsora ampelopsidis Diet. et Syd. Hedwigia 37: 217. 1898. Phakopsora vitis Syd. Hedwigia 38: 141. 1899. Physopella vitis Arth. Sci. Cong. Bot. Vienne, p. 338. 1906.

\*\*ANGIOPSORA AUREA Cumm. Bull. Torr. Bot. Club 83: 221. 1956.

On Panicum olivaceum Hitch. et Chase, P. sphaerocarpon Ell.: Honduras.

ANGIOPSORA CAMELIAE (Mayor) Mains Papers Mich. Acad. Sci., Arts, Letters 22: 154. 1937.

Uredo cameliae Mayor Mem. Soc. Neuch. Sci. 5: 578. 1913.

The type material of this Uredo bears telia, hence the epithet can be credited to Mayor in the "perfect stage" name.

Puccinia cameliae Arth. Mycologia 7: 227. 1915.

\*ANGIOPSORA COMPRESSA Mains Mycologia 26: 129. 1934.

Uredo paspalicola P. Henn. Hedwigia 44: 57. 1905.

On Axonopus compressus (Swartz) P. Beauv., Paspalum conjugatum Bergius, P. decumbens Swartz, P. distichophyllum H. B. K., P. elongatum Griseb., P. fasciculatum Willd., P. humboldtiana Fluegge, P. paniculatum L., P. plicatulum Michx., P. stellatum Fluegge, P. squamulatum Fourn., P. trachycauleon Steud., P. virgatum L.: southern U. S. to South America.

Segregated from Puccinia paspalicola Arth. (see P. substriata Ell. et Barth.)

\*\*ANGIOPSORA LENTICULARIS Mains Mycologia 26: 127. 1934.

On Lasiacis divaricata (L.) Hitchc., L. ligulata Hitchc. et Chase, L. ruscifolia (H.B.K.) Hitchc., Panicum arundinariae Trin.: Puerto Rico and Guatemala.

ANGIOPSORA PALLESCENS (Arth.) Mains Mycologia 26: 128. 1934.

Puccinia pallescens Arth. Bull. Torr. Bot. Club 46: 111. 1919.

ANGIOPSORA PHAKOPSOROLDES (Arth. et Mains) Mains Mycologia 26: 128. 1934.

Puccinia phakopsoroides Arth. et Mains Bull. Torr. Bot. Club 46: 112. 1919.

\*\*ANGIOPSORA ZEAE Mains Mycologia 30: 42. 1938.

On  $\underline{\text{Zea mays}}$  L.: Dominican Republic, Grenada, Guatemala, Jamaica, Mexico, Puerto Rico, St. Vincent.

APLOPSORA NYSSAE Mains Amer. Jour. Bot. 8: 442. 1921. Uredo nyssae Ell. et Tracy Jour. Myc. 6: 77. 1890. See NOTE 1, p. 110

\*\*ARTHURIA COLUMBIANA (Kern et Whet.) Cumm. Bull. Torr. Bot. Club 70: 519. 1943. On Croton gossypifolium Vahl: Costa Rica.

Atelocauda incrustans Arth. et Cum.; See PILEOLARIA INCRUSTANS (Arth. et Cumm.) Thirum. et Kern

BAEODROMUS CALIFORNICUS Arth. Ann. Mycol. 3: 19. 1905.

\*\*BAEODROMUS DOMINICANA (Kern) Thirum. et Kern Mycologia 41: 284. 1949. Phakopsora dominicana Kern Mycologia 20: 63. 1928.

BAEODROMUS EUPATORII (Arth.) Arth. No. Amer. Flora 7: 125. 1907.

BAEODROMUS HOLWAYI Arth. Ann. Mycol. 3: 19. 1905.

Bitzea ingae (Syd.) Mains: See CHACONIA INGAE (Syd.) Cumm.

BOTRYORHIZA HIPPOCRATEAE Whet. et Olive in Olive et Whet. Amer. Jour. Bot. 4: 47. 1917.

BUBAKIA CROTONIS (Burr.) Arth. Res. Sci. Congr. Bot. Vienne, p. 339. 1906.

Trichobasis crotonis Cke. Grevillea 6: 137. 1878. See NOTE 1, p. 110.

Melampsora crotonis Burr. Bot. Gaz. 9: 189. 1884.

Phakopsora crotonis Arth. Bull. Torr. Bot. Club 44: 508. 1917.

BUBAKIA ERYTHROXYLONIS Cumm. Mycologia 48: 601. 1956.

Uredo erythroxylonis Graz. Bull. Soc. Myc. France 7: 152. 1891. See NOTE 1, p. 110

Bubakia erythroxylonis Cumm. Bull. Torr. Bot. Club 67: 69, 1940. Lacks the Latin diagnosis required by Art. 44 and 53.

BUBAKIA MEXICANA Arth. No. Amer. Flora 7: 104. 1907.

Phakopsora mexicana Arth. Bull. Torr. Bot. Club 44: 508. 1917.

Bullaria: See PUCCINIA

- CAEOMA DUBIUM C. A. Ludwig Phytopath. 5: 281. 1915.
- \*CAEOMA FAULLIANA Hunter Jour. Arnold Arb. 17:118. 1936. On Abies lasiocarpa (Hook.) Nutt.: Alberta.
- \*CAEOMA TORREYAE Bonar Mycologia 43: 62. 1951. On Torreya californica Torr.: California.

See NOTE 1, p. 110

based on telia.

Calliospora: See UROPYXIS

CALLIOSPORA FARLOWII Arth. Bot. Gaz. 39: 39. 1905.

Calliospora is a synonym of Uropyxis. This species belongs in Uropyxis

but the need for the transfer was overlooked by Cummins
(Mycologia 48: 601-608, 1956).

CEROTELIUM ALIENUM (Syd. et Butl.) Arth. No. Amer. Flora 7: 698. 1925.

CEROTELIUM CANAVALIAE Arth. Bull. Torr. Bot. Club 33: 30. 1906.

Cerotelium desmium (Berk. et Br.) Arth.: See PHAKOPSORA GOSSYPII (Arth.) Hirat. f.

CEROTELIUM DICENTRAE Mains et H. W. Anderson in Mains Amer. Jour. Bot. 8: 445. 1921. Aecidium dicentrae Trel. Trans. Wis. Acad. Sci. 6: 136. 1884.

CEROTELIUM FICI (Butl.) Arth. Bull. Torr. Bot. Club 44: 509. 1917.
Uredo fici Cast. in Desm. Pl. Crypt. (Fasc. 34) No. 1662. 1848.
See NOTE 1, p. 110
Kuehneola fici Butl. Ann. Mycol. 12: 76. 1914. The first name

\*\*CHACONIA ALUTACEA Juel in Bihang K. Sv. Vet.-Akad. Handl. 23:12. 1897. On Pithecolobium recordii (Britt. et Rose) Standl.: British Honduras.

CHACONIA INGAE (Syd.) Cumm. Mycologia 48: 602. 1956.
Ravenelia ingae Arth. No. Amer. Flora 7: 132. 1907. Telia not described.
Maravalia ingae Syd. Mycologia 17: 257. 1925. Telia were first described under this name.

Maravalia utriculata Syd. Ann. Mycol. 23: 314. 1925. Bitzea ingae Mains Mycologia 31: 38. 1939.

Chaconia texensis Arth. No. Amer. Flora 7: 734. 1926. Not a rust.

\*\*CHRYSELLA MIKANIAE Syd. Ann. Mycol. 24: 292. 1926. On Mikania hirsutissima DC.: Costa Rica.

CHRYSOCELIS LUPINI Lagerh. et Diet. ex Mayor Mem. Soc. Neuch. Sci. Nat. 5: 542. 1913.

CHRYSOCYCLUS CESTRI (Diet. et P. Henn.) Syd. Ann. Mycol. 23: 322. 1925.

Puccinia cestri Diet. et P. Henn. Hedwigia 41: 295. 1902.

Chrysopsora cestri (Diet. et P. Henn.) Arth. Bull. Torr. Bot. Club
51: 53. 1924.

CHRYSOMYXA ARCTOSTAPHYLIDiet. Bot. Gaz. 19. 303. 1894.

Chrysomyxa cassandrae (Pk. et G. W. Clint.) Tranz. See CHRYSOMYXA LEDI DBy. var. CASSANDRAE (Pk. et G. W. Clint.) Savile

- CHRYSOMYXA CHIOGENIS Diet. Bot. Gaz. 19: 303. 1894. Aecia on Picea glauca Moench. and P.  $\underline{\text{mariana}}$  (Mill.) B.S.P. in Ontario (Faull)<sup>4</sup>
- CHRYSOMYXA EMPETRI Schroet, ex Cumm. Mycologia 48: 602, 1956. Uredo empetri Pers. ex DC, Fl. Fr. 6:87, 1815. See NOTE 1, p. 110. Thecopsora empetri Karst, Bidr. Finlands Nat. Folk 31: 143, 1879. Based on uredia.
  - Chrysomyxa empetri Schroet, in Cohn Krypt. Fl. Schles. 3 (1): 372. 1887. Based on uredia.
  - Chrysomyxa empetri Schroet. ex Jørstad Kgl. Norske Vidensk. Selsk. Skr. 1935. (38): 51. 1936. Telia described, but without Latin diagnosis.
- CHRYSOMYXA ILICINA (Arth.) Arth. Manual Rusts U. S. and Canada, p. 31. 1934.

  Aecidium ilicinum Ell. et Ev. Bull. Torr. Bot. Club 24: 284. 1897.

  See NOTE 1, p. 110

  Melampsoropsis ilicina Arth. No. Amer. Flora 7: 688. 1925. Telia
  - Melampsoropsis ilicina Arth. No. Amer. Flora 7: 688. 1925. Telia first described.
- CHRYSOMYXA LEDI Dby. Bot. Zeit. 37: 809. 1879.

  Uredo ledi Alb. et Schw. Consp. Fung., p. 125. 1805. See NOTE 1, p. 110.
- CHRYSOMYXA LEDI DBy. var. CASSANDRAE (Pk. et G. W. Clint.) Savile Can. Jour. Res. C, 28: 324. 1950.
  - Uredo cassandrae Pk. et G. W. Clint. in Pk. Ann. Rept. N. Y. State
    Mus. 30: 54. 1878. Savile (l.c.) points out that the lectotype of
    this <u>Uredo</u> bears telia, hence the specific epithet is valid for transfer
    to form part of the telial epithet.
  - Chrysomyxa cassandrae (Pk. et G. W. Clint.) Tranz. Trav. Soc. Nat. St. Petersb., Sect. Bot. 23: 28. 1893.
- CHRYSOMYXA LEDI DBy. var. GLANDULOSI Savile Can. Jour. Bot. 33: 489. 1955. On Picea engelmanii (Parry) Engelm.: British Columbia.
- CHRYSOMYXA LEDI DBy. var. GROENLANDICI Savile Can. Jour. Bot. 33: 490. 1955. On Ledum groenlandicum Oeder: Canada, Michigan, New Hampshire.
- CHRYSOMYXA LEDI DBy. var. LEDI Savile sets up this var. (Can. Jour. Res. C, 28: 324. 1950) as provided in Art. 35 of the Inter. Code.
- CHRYSOMYXA LEDI DBy var. RHODODENDRI (DBy.) Savile Can. Jour. Bot.  $33:491.\ 1955.$ 
  - Chrysomyxa rhododendri DBy. Bot. Zeit. 37: 809. 1879.
  - Chrysomyxa ledi (Alb. et Schw.) DBy. var. rhododendri (DC.) Savile Can. Jour. Res., C, 28: 325. 1950. This varietal name having been based on an imperfect state name is not valid.
- On Rhododendron lapponicum L.: Manitoba, British Columbia, Newfoundland; Rhododendron spp: Washington.
- CHRYSOMYXA LEDI DBy. var. VACCINII Ziller in Savile Can. Jour. Bot. 33: 492. 1955.
  - On Vaccinium parvifolium Smith: British Columbia.
- CHRYSOMYXA LEDICOLA Lagh. Tromsø Mus. Aarsh. 16: 119. 1893. Uredo ledicola Pk. Ann. Rept. N.Y. State Mus. 25: 90. 1873. See NOTE 1, p. 110.

<sup>&</sup>lt;sup>4</sup>For additional hosts and extended ranges of various species of <u>Chrysomyxa</u> see Savile, Canadian Jour. Res. C. 28: 318-330, 1950 and Canadian Jour. Bot. 33: 487-496, 1955.

CHRYSOMYXA MONESIS Ziller Can. Jour. Bot. 32: 435. 1954

On Picea sitchensis (Bong.) Carr., Moneses uniflora (L.) Gray and var. reticulata (L.) Gray: Alaska, British Columbia, Washington. This species was segregated from C. pyrolae (DC.) Rostr. of Arthur's Manual. See C. pirolata Wint.

CHRYSOMYXA PIPERIANA Sacc. et Trott. ex Cumm. Mycologia 48: 602. 1956.

Melampsoropsis piperiana Arth. No. Amer. Flora 7: 120. 1907. Based on uredia.

Chrysomyxa piperiana Sacc. et Trott. in Sacc. Syll. Fung. 21:716. 1912. Based on uredia.

Peridermium parksianum Faull Jour. Arnold Arb. 15:86. 1934.

Chrysomyxa piperiana Sacc. et Trott. ex Faull Jour. Arnold Arb. 17: 110. 1936. Telia first described, but without Latin diagnosis.

CHRYSOMYXA PIROLATA Wint. in Rab. Krypt.-Fl. ed. 2, I, 1: 250. 1882. Uredo pirolata Körnicke Hedwigia 16: 28. 1877. See NOTE 1, p. 110. Chrysomyxa pyrolae (DC.) Rostr. Bot. Centralbl. 5: 127. 1877. Nomen nudum.

Chrysomyxa pyrolae (DC.) Rostr.: See C. PIROLATA Wint.

CHRYSOMYXA ROANENSIS (Arth.) Arth. Manual Rusts U. S. and Canada, p. 35. 1934

Melampsoropsis roanensis Arth. Bull. Torr. Bot. Club 49: 190. 1922.

CHRYSOMYXA WEIRII Jacks. Phytopath. 7: 353. 1917.

CHRYSOMYXA WORONINII Tranz. Centralbl. II, 11: 106. 1903.

On Ledum groenlandicum Oeder, Ledum palustre L. var. decumbens Ait., Picea glauca (Moench.) Voss, Picea mariana (Mill.) B.S.P.: Newfoundland, Nova Scotia, British Columbia, Quebec, Yukon, Alaska.

Chrysopsora cestri (Diet. et P. Henn.) Arth.: See CHRYSOCYCLUS CESTRI (Diet. et P. Henn.) Syd.

CIONOTHRIX CUPANIAE Arth. et J. R. Johnston Mem. Torr. Bot. Club 17: 115. 1918.

CIONOTHRIX PRAELONGA (Wint.) Arth. No. Amer. Flora 7: 124, 1907.

Coleosporium adenocaulonis Jacks. See UREDO ADENOCAULONIS (Jacks.) Cumm.

COLEOSPORIUM ANCEPS Diet. et Holw. in Holway Bot. Gaz. 31: 337. 1901.

COLEOSPORIUM APOCYNACEUM Cke. Hedwigia 17: 38. 1878.

Coleosporium aridum Jacks.: See UREDO ARIDA (Jacks. ex Arth.) Cumm.

COLEOSPORIUM ASTERUM (Diet.) Syd. Ann. Mycol. 12: 109. 1914.

Coleosporium solidaginis Thuem. Bull. Torr. Bot. Club 6: 216. 1878.

This name is based on uredia only.

Stichopsora asterum Diet. Bot. Jahrb. 28: 565. 1899. This is the first valid telial name.

COLEOSPORIUM BEGONIAE Arth. No. Amer. Flora 7: 86. 1907.

COLEOSPORIUM CAMPANULAE Lév. ex Kickx Fl. Flandres 2: 54. 1867. Telia first described.

Uredo campanulae Pers. Syn. Meth. Fung., p. 217. 1801. See NOTE 1, p. 110. Coleosporium campanulae Lev. Ann. Sci. Nat. III. 8: 373. 1847. Telia not described.

- Hylander, Jørstad and Nannfeldt (loc. cit, p. 8) consider this a form of C. tussilaginis (Pers.) Lév. in Orbigny Dict. Univ. Hist. Nat. 12: 786. 1849.
- Coleosporium carneum [Bosc] Jacks.: See COLEOSPORIUM VERNONIAE Berk. et Curt.
- \*COLEOSPORIUM CROWELLII Cumm. Phytopath. 28: 523. 1938.
  On Pinus edulis Engelm., P. flexilis James: Arizona, Colorado, New Mexico.
- COLEOSPORIUM DAHLIAE Arth. Bot. Gaz. 40: 197. 1905.
- COLEOSPORIUM DELICATULUM Hedge, et Long ex Arth. No. Amer. Flora 7: 657. 1924.
  - Peridermium delicatulum Arth. et Kern Bull. Torr. Bot. Club 33: 412. 1906. Coleosporium delicatulum Hedge. et Long Phytopath. 3: 250. 1913.

    No telia present, hence the binomial is not valid.
- Coleosporium domingensis (Berk.) Arth.: See C. PLUMIERAE Pat.
- COLEOSPORIUM ELEPHANTOPODIS Thuem. Myc. Univ. No. 953. 1878. Uredo elephantopodis Schw. Schr. Nat. Ges. Leipzig 1: 70. 1822. See NOTE 1, p. 110.
- COLEOSPORIUM EUPATORII Arth. ex Cumm. Mycologia 48: 603. 1956.
  Coleosporium eupatorii Arth. Bull. Torr. Bot. Club 33: 31. 1906.
  Based on uredia.
  - Coleosporium eupatorii Arth. ex Tai Farlowia 3: 101. 1947. Telia first described, but without Latin diagnosis.
- COLEOSPORIUM HELIANTHI (Schw.) Arth. No. Amer. Flora 7: 93. 1907.

  Caeoma helianthi Schw. Trans. Amer. Phil. Soc. II, 4: 291. 1832.

  Arthur and Bisby (Proc. Amer. Phil. Soc. 57: 197. 1918.)

  report telia on the type of this species.
- COLEOSPORIUM INCONSPICUUM Hedge, et Long ex Arth. No. Amer. Flora 7: 659. 1924.
  - Coleosporium inconspicuum Hedge, et Long Phytopath. 3: 250. 1913. Telia not present.
- COLEOSPORIUM IPOMOEAE (Schw.) Burr. Bull. Ill. Lab. Nat. Hist. 2: 217. 1885. Uredo ipomoeae Schw. Schr. Nat. Ges. Leipzig 1: 70. 1822. Arthur and Bisby (Proc. Amer. Phil. Soc. 57: 194. 1918.) report telia on the type of this species.
  - Aecidium dominicanum Gonz. Frag. et Cif. Bol. R. Soc. Esp. Hist. Nat. 26: 249. 1926. (based on uredia.)
- COLEOSPORIUM JONESII (Pk.) Arth. Manual Rusts U. S. and Canada, p. 37. 1934. Uredo jonesii Pk. Bull. Torr. Bot. Club 12: 36. 1885. Cummins finds telia on the type of this species.

  Coleosporium ribicola Arth. No. Amer. Ffora 7: 86. 1907.
- COLEOSPORIUM LACINIARIAE Arth. No. Amer. Flora 7: 90. 1907.
- COLEOSPORIUM MADIAE (Syd.) Arth. No. Amer. Flora 7: 92. 1907.

  Coleosporium madiae Cke. Grev. 7: 102. 1879. Based on uredial state only Stichopsora madiae Syd. Ann. Mycol. 2: 30. 1904. Telia first described.
- COLEOSPORIUM MENTZELIAE (Diet. et Holw.) Arth. No. Amer. Flora 7: 86. 1907.
- COLEOSPORIUM MINUTUM Hedge, et Hunt in Hedge, Hunt et Hahn Mycologia 12: 187. 1920.

- COLEOSPORIUM OCCIDENTALE Arth. No. Amer. Flora 7: 94. 1907.
- COLEOSPORIUM PARAPHYSATUM Diet. et Holw. in Holw. Bot. Gaz. 31: 337. 1901.
- COLEOSPORIUM PINICOLA (Arth.) Arth. Manual Rusts U. S. and Canada, p. 46. 1934.
  Gallowaya pinicola Arth. Bull. Torr. Bot. Club 48: 36. 1921.
  Coleosporium pini Gall. (Jour. Myc. 7: 44. 1891) is not tenable,
  being a later homonym of C. pini Lagh. 1889.
- COLEOSPORIUM PLUMIERAE Pat. Bull. Soc. Mycol. France 18: 178. 1902.

  Uredo domingensis Berk. Ann. Mag. Nat. Hist. II, 9: 200. 1852.

  Coleosporium domingense Arth. Amer. Jour. Bot. 5: 329. 1918. This name, usually cited for this species, is based on the above Uredo name, hence is not valid.
- COLEOSPORIUM REICHEI Diet. Ann. Mycol. 21: 341. 1923. Synomyces reichei (Diet.) Arth. No. Amer. Flora 7: 661. 1924.
- Coleosporium ribicola Arth.: See C. JONESII Pk.
- COLEOSPORIUM SENECIONIS Fr. ex Kickx Fl. Flandres 2: 53. 1867. Uredo farinosa  $\beta$  senecionis Pers. Syn. Meth. Fung., p. 218. 1801. See NOTE 1, p. 110.

Coleosporium senecionis Fr. Summa Veg. Scand., p. 512. 1849. Based on Persoon's uredial name.

Hylander, Jørstad, and Nannfeldt (loc. cit., p. 11) consider this species a form of C. tussilaginis (Pers.) Lév.

Coleosporium solidaginis Thuem.: See C. asterum (Diet.) Syd.

COLEOSPORIUM SONCHI (Strauss) Lév. ex Tul. Ann. Sci. Nat. Bot. IV, 2: 190. 1854. Uredo sonchi-arvensis Pers. Syn. Meth. Fung., p. 217. 1801. Uredia only. Uredo tremellosa var. sonchi Strauss Ann. Wetter. Ges. 2: 90. 1810. The type specimen here contains telia.

Coleosporium sonchi-arvensis Lév. in Berk. Outline Brit. Fung., p. 333. 1860. Based on an uredial name.

Hylander, Jørstad, and Nannfeldt (loc. cit., p. 11) consider this species a form of C. tussilaginis (Pers.) Lév.

Coleosporium sonchi-arvensis (Pers.) Lév.: See C. SONCHI (Strauss) Lév. ex Tul.

Coleosporium spigeliae Arth. : See UREDO SPIGELIAE (Arth.) Cumm.

COLEOSPORIUM STEVIAE Arth. Bot. Gaz. 40: 197. 1905.

- COLEOSPORIUM TEREBINTHINACEAE Arth. No. Amer. Flora 7: 93. 1907. Uredo terebinthinaceae Schw. Schr. Nat. Ges. Leipzig 1: 70. 1822. See NOTE 1, p. 110.
- COLEOSPORIUM TUSSILAGINIS (Pers.) Lév. in Orbigny Dict. Univ. Hist. Nat. 12: 786. 1849.

Uredo tussilaginis Pers. Syn. Meth. Fung. 218. 1801. Hylander, Jørstad, and Nannfeldt (l.c. p. 8) report that the type specimen here contains telia.

Coleosporium campanulae Lév. ex Kickx: See separate entry.

Coleosporium senecionis Fr. ex Kickx : See separate entry.

Coleosporium sonchi (Strauss) Lév. ex Tul. : See separate entry.

COLEOSPORIUM VERNONIAE Berk. et Curt. in Berk. Grev. 3: 57. 1874.

Coleosporium carneum Jackson Proc. Ind. Acad. Sci. 1917; 312. 1918.

COLEOSPORIUM VIBURNI Arth. No. Amer. Flora 7: 88. 1907.

Coleosporium viburni Arth. Bull. Iowa Agric. Coll. Dept. Bot.

1884: 163. 1884. Telia not described, but present in the type material.

COLEOSPORIUM VIGUIERAE Diet. et Holw. in Holw. Bot. Gaz. 24: 34. 1897.

Cronartium cerebrum Hedge. et Long: See C. QUERCUUM (Berk.) Miyabe

CRONARTIUM COLEOSPORIOIDES Arth. No. Amer. Flora 7: 123. 1907.
Uredo coleosporioides Diet. et Holw. Erythea 1: 247. 1893. See NOTE 1,
p. 110.

There probably is more than one species involved here, but the correct application of names is scarcely possible at present. The aecial stages (Peridermium harknessii J. P. Moore, P. filamentosum Pk., and P. stalactiforme Arth. et Kern) are distinctive but the telial stages, which are probably all on Scrophulariaceae, have never been distinguished. C. coleosporioides Arth. is the only validly published name and it must be recognized. The only telia available to Arthur when he described the telial stage were on a specimen of Castilleja miniata Dougl., collected Aug. 10, 1886 in the mountains of Skamania Co., Wash. by Suksdorf. The specimen must be designated as the type of C. coleosporioides but the appropriate aecial stage is pure guesswork since both P. harknessii and P. stalactiforme occur in the area. It may be only coincidence that the type of P. stalactiforme was collected in the Chiquash Mts., Skamania Co., Wash., also by Suksdorf. Telial state names proposed for the three suggested segregates as listed hereafter are all nomina nuda, the telia not having been actually described.

Cronartium filamentosum Hedge, Phytopath, 2:177, 1912. Based on Peridermium filamentosum Pk.

Cronartium harknessii Meinecke Phytopath, 10: 282, 1920. Based on Peridermium harknessii J., P. Moore

Cronartium stalactiforme Arth. et Kern Bull. Torr. Bot. Club 49: 191. 1922. Based on Peridermium stalactiforme Arth. et Kern

CRONARTIUM COMANDRAE Pk. Bot. Gaz. 4: 128, 1879.

species and are so set up here.

CRONARTIUM COMPTONIAE Arth. Bull. Torr. Bot. Club 33: 29. 1906.

CRONARTIUM CONIGENUM Hedge, et Hunt Phytopath, 12: 120, 1922.

Caeoma conigenum Pat. Jour. de Bot. 10: 386-388, 1896. See NOTE 1, p. 110.

See also Cronartium quercuum (Berk.) Miyabe

CRONARTIUM FLACCIDUM (Alb. et Schw.) Wint. Hedwigia 19: 55. 1880.

Sphaeria flaccida Alb. et Schw. Consp. Fung. Nisk., p. 31. 1805. The type contains telia according to Hylander, Jørstad, and Nannfeldt (loc. cit. p. 12).

CRONARTIUM FUSIFORME Hedge, et Hunt ex Cumm. Mycologia 48: 603. 1956.

Peridermium fusiforme Arth. et Kern Bull. Torr. Bot. Club

33: 421. 1906. See NOTE 1, p. 110.

Cronartium fusiforme Hedge. et Hunt Phytopath. 8: 316. 1918. Nomen nudum.

See also C. quercuum (Berk.) Miyabe

CRONARTIUM OCCIDENTALE Hedge., Bethel, et Hunt Phytopath. 14: 413. 1918.

CRONARTIUM QUERCUUM (Berk.) Miyabe ex Shirai Bot. Mag. Tokyo 13: 74. 1899.

Cronartium asclepiadeum quercium Berk. Grev. 3: 59. 1874.

Cronartium quercus Schroeter Michelia 2: 308. 1881. This name often used for the species is based on the uredial state, hence is not valid.

Arthur (Manual Rusts U. S. and Canada, p. 25. 1934.) included C. cerebrum,

C. fusiforme, and C. strobilinum in his concept of Cronartium quercuum. C. cerebrum has not been validly published. The other three are now generally recognized as distinct

- CRONARTIUM RIBICOLA J. C. Fischer ex Rabenhorst Fungi Europaei No. 1595; Hedwigia 11: 182. 1872.
- This type bears telia and the description reads, in part: "..., die Reihen-Sporen die Fruchtträger farblos." We interpret this as being a description of the telia. Hylander, Jørstad and Nannfeldt (loc. cit. p. 13) accept the J. C. Fischer name.
- CRONARTIUM STROBILINUM Hedge, et Hahn Phytopath. 12: 113, 1922.

  Caeoma strobilina Arth. Bull. Torr. Bot. Club 33: 519-520, 1906.

  See NOTE 1, p. 110.
  - See also Cronartium quercuum (Berk.) Miyabe
- Cronartium wilsoniana Arth. et J. R. Johnston: See CROSSOPSORA CAUCENSIS (Mayor) Kern, Thurst., et Whet.
- CROSSOPSORA CAUCENSIS (Mayor) Kern, Thurst., et Whet. Mycologia 25: 456. 1933. Uredo caucensis Mayor Mem. Soc. Neuch. Sci. Nat. 5: 587. 1913. Cronartium wilsoniana Arth. et J. R. Johnston Mem. Torr. Bot. Club 17: 114. 1918.

Crossopsora wilsoniana Arth. No. Amer. Flora 7: 696. 1925.

Kern, Thurston, and Whetzel (loc. cit.) report the presence of telia in the type specimen of <u>Uredo caucensis</u>. They do not offer a formal description, but since they cite that of Arthur and Johnston (loc. cit.), the transfer is valid.

- \*\*CROSSOPSORA MATELEAE Dale Commonwealth Myc. Inst. Mycol. Papers 59: 4. 1955.
  On Fischeria sp., Macroscepsis sp., Matelea viridiflora (G. F. W. Mey.)
  Woodson: Guatemala, Grenada, St. Vincent, Tobago.
  - CROSSOPSORA NOTATA (Arth. et J. R. Johnston) Arth. No. Amer. Flora 7: 695. 1925.

    Uredo notata Arth. Mycologia 9: 89. 1917. See NOTE 1, p. 110.

    Cronartium notatum Arth. et J. R. Johnston Mem. Torr. Bot. Club 17: 114. 1918.
- \*\*CROSSOPSORA STEVENSII Syd. Mycologia 17: 255. 1925.
  On Mandevilla subsagittata (R. et P.) Woodson: Guatemala.
  - Crossopsora wilsoniana (Arth. et J. R. Johnston) Arth.: See CROSSOPSORA CAUCENSIS (Mayor) Kern, Thurst., et Whet.
  - Ctenoderma cristatum (Speg.) Syd.: See SKIERKA CRISTATA Mains
  - CUMMINSIELLA MIRABILISSIMA (Pk.) Nannf. in Lundell et Nannf. Fungi Exs. Suec. No. 1507 a. 1947.

Uromyces sanguinea Pk. Bot. Gaz. 4: 128. 1879. Based on uredia.

Puccinia mirabilissima Pk. Bot. Gaz. 6: 226. 1881.

Uropyxis sanguinea Arth. No. Amer. Flora 7: 155. 1907.

Cumminsiella sanguinea Arth. Bull. Torr. Bot. Club 60: 475. 1933.

- Cumminsiella sanguinea (Pk.) Arth.: See C. MIRABILISSIMA (Pk.) Nannf.
- \*\*CUMMINSIELLA STANDLEYANA Cumm. Bull. Torr. Bot. Club 67: 607. 1940.

  On Berberis fascicularis DC. ( = Mahonia pinnata (Lag.) Fedde?): Guatemala.
  - CUMMINSIELLA TEXANA (Holw. et Long) Arth. Bull. Torr. Bot. Club 60: 475. 1933. Uropyxis texana Arth. No. Amer. Flora 7: 155. 1907. Aecidium butlerianum Rosen et Arth. Phytopath. 9: 572. 1919.
  - CUMMINSIELLA WOOTONIANA (Arth.) Arth. Bull. Torr. Bot. Club 60: 475. 1933. Uropyxis wootoniana Arth. Bull. Torr. Bot. Club 42: 585. 1915.
  - Cystingophora hieronymi (Speg. ) Arth. : See RAVENELIA HIERONYMI Speg.

- \*\*CYSTOMYCES COSTARICENSIS Syd. Ann. Mycol. 24: 290. 1926. On Leguminosae indet.: Costa Rica.
  - Dasyspora foveolata (Schw.) Berk. et Curt.: See D. GREGARIA (Kunze ex Weigelt)
    P. Henn.
  - DASYPORA GREGARIA (Kunze) P. Henn. Hedwigia 35: 231. 1896.

    Puccinia gregaria Kunze in Weigelt Fungi Surinam. 1827.

    Dasyspora foveolata Berk. et Curt. Jour. Acad. Nat. Sci. Phil. II

    2: 281. 1853. Cites Aecidium foveolatum Schw. (Mss.) as a synomym.
  - Dendroecia farlowiana (Diet.) Arth.: See RAVENELIA FARLOWIANA Diet.
  - Dendroecia opaca (Diet.) Arth.: See RAVENELIA OPACA Diet.
  - Desmella obovata Arth.: See UREDO OBOVATA (Arth.) Cumm.
  - \*DESMELLA SUPERFICIALIS Syd. Ann. Mycol. 16: 242. 1918.
    Caeoma superficialis Speg. Anal. Soc. Cien. Argent. 17: 96. 1884.
    See NOTE 1, p. 110.
    On Nephrolepis exaltata (L.) Schott: Florida.
  - DIABOLE CUBENSIS (Arth. et J. R. Johnston) Arth. Bull. Torr. Bot. Club 49: 194. 1922. Uromycladium cubense Arth. et J. R. Johnston Mem. Torr. Bot. Club 17: 119. 1918.
  - Dicaeoma: See PUCCINIA
  - DICHEIRINIA BINATA (Berk.) Arth. No. Amer. Flora 7: 147. 1907.
  - DICHEIRINIA ORMOSIAE (Arth.) Cumm. Mycologia 27: 155. 1935. Puccinia ormosiae Arth. Mycologia 9: 78. 1917.
  - Discospora effusa (Pk.) Arth.: See PILEOLARIA EFFUSA Pk.
  - ENDOPHYLLOIDES PORTORICENSIS Whet, et Olive in Olive et Whet. Amer. Jour. Bot. 4:50. 1917.
  - ENDOPHYLLUM CIRCUMSCRIPTUM (Schw.) Whet, et Olive in Olive et Whet. Amer.

    Jour. Bot. 4: 49. 1917.
    - Aecidium circumscriptum Schw. ex Berk. et Curt. Jour. Acad. Phil. II. 2: 283. 1853.
  - ENDOPHYLLUM DECOLORATUM (Schw.) Whet. et Olive in Olive et Whet. Amer. Jour. Bot. 4: 49. 1917.

    Aecidium decoloratum Schw. ex Berk. et Curt. Jour. Acad. Phil. II. 2: 283. 1853.
- \*ENDOPHYLLUM LACUS-REGIS Savile et Parmelee Mycologia 48: 577. 1956. On Claytonia caroliniana Michx.: Ontario
  - ENDOPHYLLUM SEMPERVIVI (Alb. et Schw.) dBy Ann. Sci. Nat. IV. 20: 86. 1863.
  - ENDOPHYLLUM STACHYTARPHETAE (P. Henn.) Whet, et Olive in Olive et Whet. Jour. Bot. 4: 50. 1917.
  - ENDOPHYLLUM TUBERCULATUM (Ell. et Kell.) Arth. et Fromme Bull. Torr. Bot. Club 42: 58. 1915.
  - Frommea duchesneae Arth.: See F. OBTUSA DUCHESNEAE (Arth.) Arth.

- \*\*FROMMEA MEXICANA Mains Bull. Torr. Bot. Club 66: 618. 1939. On Fragaria mexicana Cham. et Schlecht.: Mexico.
  - FROMMEA OBTUSA (Strauss) Arth. Bull. Torr. Bot. Club 44: 503. 1917. Uredo obtusa Strauss Ann. Wett. Ges. 2: 107. 1810. Based on telia.
  - FROMMEA OBTUSA DUCHESNEAE (Arth.) Arth. Manual Rusts U. S. and Canada, p. 93. 1934.
    - Frommea duchesneae Arth. No. Amer. Flora 7: 185. 1912.
  - ${\tt Gallowaya\ pinicola\ Arth.: See\ COLEOSPORIUM\ PINICOLA\ (Arth.)\ Arth.}$
  - Gymnoconia interstititialis Lagh.: See G. PECKIANA (Howe) Trott.
  - GYMNOCONIA PECKIANA (Howe) Trott. Fl. Ital. Crypt. I (Uredinales), p. 338. 1910. Gymnoconia interstitialis Lagh. Troms Mus. Aarsh. 16: 140. 1894. Caeoma interstitiale Schlecht. Horae Phys. Berol. 96. 1820. See NOTE 1, p. 110.
  - Gymnosporangium aurantiacum Chev.: See G. CORNUTUM Arth.
  - GYMNOSPORANGIUM BERMUDIANUM Earle in Seymour and Earle, Economic Fungi No. 249. 1892. Aecidium bermudianum Farl. Bot. Gaz. 12: 206. 1887. See NOTE 1, p. 110.
  - GYMNOSPORANGIUM BETHELII Kern Bull. Torr. Bot. Club 34: 459. 1907.
  - GYMNOSPORANGIUM BISEPTATUM Ell. Bull. Torr. Bot. Club 5: 46. 1874.

    Caeoma (Roestelia) botryapites Schw. Trans. Amer. Phil. Soc. II.
    4: 294. 1832.

    Gymnosporangium botryapites Kern Bull. Torr. Bot. Club 35: 506. 1908.
  - Gymnosporangium blasdaleanum (Diet. et Holw.) Kern: See G. LIBOCEDRI (P. Henn.) Kern
  - Gymnosporangium botryapites (Schw.) Kern: See G. BISEPTATUM Ell.
  - Gymnosporangium clavariaeforme (Jacq.) DC.: See G. CLAVARIIFORME (Pers.) DC.
  - GYMNOSPORANGIUM CLAVARIIFORME (Pers.) DC. Fl. Fr. 2:217. 1805.

    Tremella clavariaeformis Pers. Syn. Meth. Fungi., p. 629. 1801.

    A correction is made in the spelling of the specific epithet and the prestarting point author (Jacquin) is omitted.
  - GYMNOSPORANGIUM CLAVIPES (Cke. et Pk.) Cke. et Pk. in Pk. Ann. Rept. N. Y. State Mus. 25: 89. 1873.
    - Caeoma (Peridermium) germinale Schw. Trans. Amer. Phil. Soc. II. 4: 294. 1832. See NOTE 1, p. 110.
    - Podisoma gymnosporangium clavipes Cke. et Pk. in Cke. Jour. Quek. Club 2: 267. 1871.
    - Gymnosporangium germinale Kern Bull. Torr. Bot. Club 35: 506. 1908.
  - GYMNOSPORANGIUM CORNICULANS Kern in Arth. Mycologia 2: 236. 1910.
  - GYMNOSPORANGIUM CORNUTUM Arth. ex Kern Bull. N.Y. Bot. Garden 7: 444-445. 1911.
    - Gymnosporangium cornutum Arth. Mycologia 1: 240. 1909. Telia not described. Aecidium cornutum Pers. Syn. Meth. Fung., p. 205. 1801.
    - Gymnosporangium aurantiacum Chev. Fl. Paris 1: 424. 1826.
      - Hylander, Jørstad, and Nannfeldt (loc. cit. p. 15) consider G. aurantiacum

- Chev., a nomen ambiguum, since it may apply to either  $\underline{G}$ .  $\underline{cornutum}$  Arth. or to  $\underline{G}$ . tremelloides Hartig.
- GYMNOSPORANGIUM CUPRESSI Long et Goodding in Long Bot. Gaz. 72: 39. 1921.

  The aecial stage occurs on <u>Amelanchier</u> (Long and Goodding Mycologia 32: 490. 1940).
- GYMNOSPORANGIUM DAVISII Kern Bull. Torr. Bot. Club 35: 507. 1908.
- GYMNOSPORANGIUM EFFUSUM Kern Bull. N. Y. Bot. Garden 7: 459. 1911.
- GYMNOSPORANGIUM ELLISII (Berk.) Ell. No. Amer. Fungi No. 271. 1879.
  Podisoma ellisii Berk. Grev. 3: 56. 1874.
  Caeoma (Aecidium) myricatum Schw. Trans. Amer. Phil. Soc. II.

Caeoma (Aecidium) myricatum Schw. Trans. Amer. Phil. Soc. II. 4: 294. 1832. See NOTE 1, p. 110.

Gymnosporangium myricatum Fromme Mycologia 6: 229. 1914. This species is usually cited as G. ellisii (Berk.) Farl. in Ell.

No. Amer. Fungi No. 271. 1879. However, the label of this specimen bears no reference to Farlow, reading "Gymnosporangium (Podisoma) ellisii, Berk." This would indicate that Ellis was making the new combination. It may be noted as confirming this opinion, that the species is cited in the same manner in the two indexes to early centuries of North American Fungi. (Alphabetical Index, Centuries I-X, Ellis, No. Amer. Fungi, p. 3, W. C. Stevenson, Jr. and Alphabetical Index, Centuries I-XV, p. 6, B. M. Everhart.). Farlow (The Gymnosporangia or Cedarapples of the U. S., p. 11, 1880) cites the species as Gymnosporangium ellisii (Berk.). He was apparently indicating a new combination, but such a combination had been made a year earlier and as far as the record goes, by Ellis.

- GYMNOSPORANGIUM EXIGUUM Kern Bull. Torr. Bot. Club 35: 508. 1908.
- GYMNOSPORANGIUM EXTERUM Arth. et Kern in Arth. Mycologia 1: 254. 1909,
- GYMNOSPORANGIUM FLORIFORME Thaxt. in Kern Bull. Torr. Bot. Club 35: 503. 1908.
  - Gymnosporangium flaviformis (Atk.) Earle Contrib. U. S. Nat. Herb. 6: 186. 1901. Nomen nudum.
- GYMNOSPORANGIUM FRATERNUM Kern Bull. N. Y. Bot. Garden 7: 439. 1911. Roestelia transformans Ell. in Pk. Bull. Torr. Bot. Club 5: 3. 1874. See NOTE 1, p. 110.
  - Gymnosporangium transformans Kern Bull, N. Y. Bot. Garden 7: 463. 1911.
- Gymnosporangium germinale (Schw.) Kern: See G. CLAVIPES (Cke. et Pk.) Cke. et Pk.
- GYMNOSPORANGIUM GLOBOSUM Farl. The Gymnosporangia or Cedar-apples of the U. S., p. 34. 1880.
- Gymnosporangium gracilens (Pk.) Kern et Bethel: See G. SPECIOSUM Pk.
- Gymnosporangium guatemalianum Crowell: See ROESTELIA GUATEMALIANA (Crowell) Cumm.
- GYMNOSPORANGIUM HARAEANUM Syd. Ann. Mycol. 10: 405. 1912. Gymnosporangium koreaense Jacks. Jour. Agr. Res. 5: 1006. 1916.
- GYMNOSPORANGIUM HARKNESSIANUM Kern ex Arth. No. Amer. Flora 7: 737. 1926. Roestelia harknessianum Ell. et Ev. ex Kern Bull. Torr. Bot. Club 34: 462. 1907. See NOTE 1, p. 110.
  - Gymnosporangium harknessianum Kern Bull, N. Y. Bot. Garden 7: 441. 1911. Telia not described.

- GYMNOSPORANGIUM HYALINUM Kern ex Cumm. Mycologia 48: 603. 1956. Roestelia hyalina Cke. Bull. Soc. Bot. France 24: 315. 1877. See NOTE 1, p. 110.
  - Gymnosporangium hyalinum Kern Bull. N. Y. Bot. Garden 7: 470. 1911. Based on aecia.
  - Gymnosporangum hyalinum Kern et West Mycologia 39: 123. 1947. Telia first described, but without Latin diagnosis.
  - On Chamaecyparis thyoides (L.) B.S.P.: Florida, South Carolina.
- GYMNOSPORANGIUM INCONSPICUUM Kern Bull. Torr. Bot. Club 32: 461. 1907. Roestelia photiniae P. Henn. Hedwigia 33: 231. 1894. See NOTE 1, p. 110.
  - Gymnosporangium photiniae Kern Bull, N. Y. Bot. Garden 7: 443. 1911.
- Gymnosporangium juniperinum L. ex Mart.: See G. TREMELLOIDES Hartig
- GYMNOSPORANGIUM JUNIPERI-VIRGINIANAE Schw. Schr. Nat. Ges. Leipzig 1: 74. 1822.
- GYMNOSPORANGIUM JUVENESCENS Kern Bull. N.Y. Bot. Gard. 7: 448. 1911.

  According to Prince (Farlowia 2: 481. 1946.) this species is synonymous with G. nidus-avis Thaxt.
- GYMNOSPRANGIUM KERNIANUM Bethel Mycologia 3: 157. 1911.
- Gymnosporangium koreaense Jacks.: See G. HARAEANUM Syd.
- GYMNOSPORANGIUM LIBOCEDRI (P. Henn.) Kern Bull. Torr. Bot. Club 35: 509. 1908.
  - Aecidium blasdaleanum Diet. et Holw. Erythea 3: 77. 1895. See NOTE 1, p. 110.
  - Phragmidium libocedri P. Henn. Hedwigia 37: 271. 1898.
  - Gymnosporangium blasdaleanum Kern Bull, N.Y. Bot. Garden 7: 437, 1911.
- \*\*GYMNOSPORANGIUM MERIDISSIMUM Crowell Canad. Jour. Res. C, 16:11. 1942. On Cupressus benthami Endl.: Guatemala.
  - GYMNOSPORANGIUM MULTIPORUM Kern Mycologia 1: 210. 1909.
  - Gymnosporangium myricatum (Schw.) Fromme: See G. ELLISII (Berk.) Ell.
  - GYMNOSPORANGIUM NELSONI Arth. Bull. Torr. Bot. Club 28: 665. 1901.
  - GYMNOSPORANGIUM NIDUS-AVIS Thaxt. Conn. Agric. Exp. Sta. Bull. 107: 3. 1891. G. juvenescens Kern is synonymous, according to Prince (Farlowia 2: 481. 1946).
  - GYMNOSPORANGIUM NOOTKATENSE Arth. Amer. Jour. Bot. 3: 44. 1916. Uredo nootkatensis Trel. Harr. Alaska Exp. Crypt., p. 36. 1904. See NOTE 1, p. 110.
    - Gymnosporangium sorbi Kern Bull. N.Y. Bot. Garden 7: 438, 1911. Telia not described.
    - Gymnotelium nootkatense Syd. Ann. Mycol. 19: 170. 1921.
  - Gymnosporangium photiniae Kern: See G. JAPONICUM Syd.
  - Gymnosporangium sorbi Kern: See G. NOOTKATENSE Arth.

- GYMNOSPORANGIUM SPECIOSUM Pk. Bot. Gaz. 4: 217. 1879.

  Aecidium gracilens Pk. Bot. Gaz. 4: 128. 1879. See NOTE 1, p. 110.

  Gymnosporangium gracilens Kern et Bethel in Kern Bull. N. Y.

  Bot. Garden 7: 455. 1911.
- GYMNOSPORANGIUM TRACHYSORUM Kern in Arth. Mycologia 2: 237-238. 1910.
- Gymnosporangium transformans (Ell.) Kern: See G. FRATERNUM Kern
- GYMNOSPORANGIUM TREMELLOIDES Hartig Lehrb. Baumkrankh., p. 55. 1882.

  Gymnosporangium juniperinum Mart. Fl. Crypt. Erlang., p. 333.

  1817.

  Hylander, Jørstad, and Nannfeldt (loc. cit. p. 15), consider

Hylander, Jørstad, and Nannfeldt (loc. cit. p. 15), consider  $\underline{G}$ . juniperinum a nomen ambiguum, since it may apply to either  $\underline{G}$ . cornutum Arth. or  $\underline{G}$ . tremelloides Hartig.

- GYMNOSPORANGIUM TUBULATUM Kern ex Arth. No. Amer. Flora 7: 738. 1926.
  Gymnosporangium tubulatum Kern Bull. N.Y. Bot. Garden 7: 451. 1911.
  Telia not described.
- \*GYMNOSPORANGIUM VAUQUELINIAE Long et Goodding Mycologia 31: 671. 1939.

  On Vauquelinia californica Sarg. and Juniperus monosperma (Engelm.)

  Sarg. in Arizona.
- Gymnotelium nootkatense Syd.: See GYMNOSPORANGIUM NOOTKATENSE Arth.
- HAPLOPYXIS CROTALARIAE (Arth.) Syd. Ann. Mycol. 17: 105, 1919.
- HYALOPSORA ASPIDIOTUS (Magn.) Magn. Ber. Deutsch. Bot. Ges. 19: 582. 1901. Uredo aspidiotus Pk. Rept. N. Y. State Mus. 24: 88. 1872. See NOTE 1, p. 110. Melampsorella aspidiotus Magn. Ber. Deutsch. Bot. Ges. 13: 288. 1895.
- HYALOPSORA CHEILANTHIS Arth. Manual Rusts U. S. and Canada, p. 11. 1934. Caeoma cheilanthis Pk. Bull. Torr. Bot. Club 10: 62. 1883. See NOTE 1, p. 110.
- Hyalopsora laeviuscula (Diet. et Holw.) Arth.: See MILESIA LAEVIUSCULA (Diet. et Holw.) Faull
- Hyalopsora obovata (Arth.) Cumm.: See UREDO OBOVATA, (Arth.) Cumm.
- HYALOPSORA POLYPODII (Diet.) Magn. Ber. Deutsch. Bot. Ges. 19: 582. 1901.

  Uredo linearis var. polypodii Pers. Syn. Fung., p. 217. 1801.

  See NOTE 1, p. 110.

  Uredo polypodii DC. Fl. Fr. 6: 81. 1815. See NOTE 1, p. 110.

  Pucciniastrum polypodii Diet. Hedwigia 38 (Beibl.): 260. 1899.
- Klebahnia: See UROMYCES
- KUEHNEOLA ARTHURI (Syd.) Jacks. Mycologia 23: 106. 1931. Spirechina arthuri (Syd.) Arth. No. Amer. Flora 7: 183. 1912.
- \*\*KUEHNEOLA GUATEMALENSIS Cumm. Bull. Torr. Bot. Club 70: 71. 1943. On Rubus tuerckheimii Rydb.: Guatemala.
  - KUEHNEOLA LOESENERIANA (Arth.) Jacks. et Holw. in Jacks. Mycologia 23: 105. 1931.
    - Spirechina loeseneriana Arth. Mycologia 13: 30. 1907. Telia first described.

- KUEHNEOLA MALVICOLA Arth. No. Amer. Flora 7: 187. 1912.

  <u>Uredo malvicola Speg</u>, Anal. Soc. Cien. Argent. 17: 124. 1884.

  <u>See NOTE 1</u>, p. 110.
- KUEHNEOLA UREDINIS (Lk.) Arth. Rés. Sci. Congr. Bot. Vienne, p. 342. 1906.
- KUNKELIA NITENS (Schw.) Arth. Bot. Gaz. 63: 504. 1917.
- LIPOCYSTIS CAESALPINIAE (Arth.) Cumm. Bull. Torr. Bot. Club 64: 39. 1937. Ravenelia caesalpiniae Arth. Bull. Torr. Bot. Club 31: 5. 1904.
- MAINSIA EPIPHYLLA (Arth.) Jacks. Mycologia 23: 112. 1931. Spirechina epiphylla Arth. No. Amer. Flora 7: 184. 1912.
- \*\*MAINSIA HOLWAYI Jacks. Mycologia 23: 109. 1931. On Rubus adenotrichus Schl., R. irasuensis Liebm.: Guatemala.
  - MAINSIA PITTIERIANA (P. Henn.) Jacks. Mycologia 23: 110. 1931. Spirechina pittieriana (P. Henn.) Arth. No. Amer. Flora 7: 183. 1912.
  - MAINSIA RUBI (Diet. et Holw.) Jacks. Mycologia 23: 110. 1931.

    Spirechina rubi (Diet. et Holw.) Arth. No. Amer. Flora 7: 184. 1912.
- \*\*MAINSIA STANDLEYI Cumm. Bull. Torr. Bot. Club 70: 71. 1943. On Rubus irasuensis Liebm.: Guatemala.
  - Maravalia ingae Syd.: See CHACONIA INGAE (Syd.) Cumm.
  - MARAVALIA PRESSA (Arth. et Holw.) Mains Bull. Torr. Bot. Club 66: 177. 1939. Uromyces pressus Arth. et Holw. Mycologia 10: 125. 1918.
- \*\* MARAVALIA PURA (Syd.) Mains Bull. Torr. Bot. Club 66: 178. 1939. On Vernonia patens H.B.K.: Costa Rica.
  - Maravalia utriculata Syd.: See CHACONIA INGAE (Syd.) Cumm.
  - MELAMPSORA ABIETIS-CANADENSIS C. A. Ludwig ex Arth. No. Amer. Flora 7: 664. 1924.
    - Caeoma abietis-canadensis Farl. Proc. Amer. Acad. 20: 323. 1885. See NOTE 1, p. 110.
    - Melampsora abietis-canadensis C. A. Ludwig Phytopath, 5: 279. 1915. Nomen nudum.
    - Melampsora populi-tsugae J. J. Davis Trans. Wis. Acad. 19: 676. 1919. Nomen nudum.
  - MELAMPSORA ABIETI-CAPRAEARUM Tub. Centralbl. Bakt. II, 9:241. 1902. See also M. epitea Thuem.
  - Melampsora aecidioides (DC.) Schroet.: See M. POPULNEA (Pers.) Karst.
  - MELAMPSORA ALBERTENSIS Arth. Bull. Torr. Bot. Club 33: 517. 1906.

    The aecia of this species occur on <u>Pseudotsuga</u>, but the name

    Caeoma occidentale Arth. does not apply. See <u>Melampsora occidentalis</u> Jacks.
  - MELAMPSORA ARCTICA Rostr. Medd. Grønland 3: 535. 1888. See also M. epitea Thuem.
  - Melampsora bigelowii Thuem.: See M. PARADOXA Diet. et Holw.
  - Melampsora confluens Jacks.: See M. RIBESII-PURPUREAE Kleb.

MELAMPSORA EPITEA Thuem. Mitth. Forstl. Versuchsw. Oesterr. 2:38 et 40. 1879.

Uredo epitea Kunze et Schm. Mycol. Hefte 1, p. 68. 1817. See NOTE 1, p. 110.

According to Hylander, Jørstad, and Nannfeldt (loc. cit., p. 19) the following are forms only of the above species, since they cannot be distinguished morphologically:

Melampsora abieti-capraearum Tub.

Melampsora arctica Rostr.

Melampsora ribesii-purpureae Kleb.

MELAMPSORA EUPHORBIAE (Schub.) Cast. Obs. Myc. 2: 18. 1843.

MELAMPSORA EUPHORBIAE-GERARDIANAE W. Muell. Centralbbl. Bakt. II 548. 1907.

MELAMPSORA FARLOWII (Arth.) J. J. Davis Trans. Wis. Acad. Sci. 18:107. 1915. Necium farlowii Arth. No. Amer. Flora 7:114. 1907.

Melampsora humboldtiana Speg.: See M. ABIETI-CAPRAEARUM Tub.

\*MELAMPSORA HYPERICORUM Wint. in Rabh. Krypt.-Fl. 2 Auf., I, 1: 241. 1884. Uredo hypericorum DC. Fl. Fr. 6: 81. 1815. See NOTE 1, p. 110. Mesopsora hypericorum Diet. Ann. Mycol. 20: 30. 1922. On Hypericum scouleri Hook.: Montana.

MELAMPSORA LINI (Ehrenb.) Lév. Ann. Sci. Nat. III. 8: 376. 1847.

Uredo miniata lini Pers. Syn. Meth. Fung., p. 216. 1801. See NOTE 1, p. 110.

Xyloma lini Ehrenb. Sylvae Myc. Berol., p. 27. 1818.

MELAMPSORA MEDUSAE Thuem. Bull. Torr. Bot. Club 6: 216. 1878.

MELAMPSORA MONTICOLA Mains Phytopath. 7: 103. 1917.

MELAMPSORA OCCIDENTALIS Jacks. Phytopath. 7: 354. 1917.

Caeoma occidentalis Arth. Bull. Torr. Bot. Club 34: 591. 1907.

Ziller (Can. Jour. Bot. 33: 180-181. 1955) has pointed out that this aecial name belongs with M. occidentalis rather than with M. albertensis.

MELAMPSORA PARADOXA Diet. et Holw. in Diet. Hedwigia 40 (Beibl.): 32, 1901.

Melampsora bigelowii Thuem. Mitth. Forstl. Vers. Oest. 2: 37, 1879.

Based on uredia only.

Melampsora piscariae Jacks.: See UREDO PISCARIAE (Jacks.) Cumm.

MELAMPSORA POPULNEA (Pers.) Karst. Bidr. Känned. Finl. Nat. Folk 31: 53. 1879. Sclerotium populneum Pers. Syn. Meth. Fung., p. 125. 1801.

Melampsora aecidioides Schroet. in Cohn Krypt.-Fl. Schles. III 1: 362. 1887.

This name is superseded as above on the authority of Hylander,

Jørstad, and Nannfeldt (loc. cit., p. 24).

MELAMPSORA RIBESII-PURPUREAE Kleb. Pringsh. Jahrb. Wiss. Bot. 35: 667. 1901. See also M. epitea Thuem.

MELAMPSORELLA CARYOPHYLLACEARUM Schroet. Hedwigia 13: 85. 1874.

Melampsorella cerastii Wint. Hedwigia 19: 56. 1880. Telia not described.

Melampsorella cerastii Schroet. in Cohn Krypt.-Fl. Schles. III, 1: 366.

1887. A later homonym.

Melampsorella elatina Arth. No. Amer. Flora 7: 111. 1907.

For the species on Picea spp. sometimes included here see Peridermium coloradense (Diet.) Arth.

Melampsorella cerastii (Pers.) Schroet.: See M. CARYOPHYLLACEARUM Schroet.

Melampsorella elatina Arth.: See M. CARYOPHYLLACEARUM Schroet.

Melampsoridium alni Auct. non Diet.: See M. HIRATSUKANUM Ito

MELAMPSORIDIUM BETULINUM (Fr.) Kleb. Zeitschr. Pflanzenkr. 9: 21. 1899.

Uredo populina betulina Pers. Syn. Meth. Fung., p. 219. 1801. See

NOTE 1, p. 110.

Uredo betulae Schum. Enum. Pl. Saell. 2: 228. 1803. See NOTE 1, p. 110. Sclerotium (Xyloma) betulinum Fr. Syst. Myc. 2: 262. 1822. Telia present?

MELAMPSORIDIUM CARPINI (Fckl.) Diet. in Engler & Prantl Nat. Pfl. I 1\*\*: 551.

Caeoma carpini Nees Syst. Pilze, p. 16. 1816. See NOTE 1, p. 110. Melampsora carpini Fckl. Jahrb. Nassau Ver. Nat. 23-24; 44. 1870.

MELAMPSORIDIUM HIRATSUKANUM Ito ex Hirat. f. Jour. Fac. Agric. Hokkaido Imper. Univ. 21: 10. 1927.

Melampsoridium alni Auct, non Dietel

North American material should be referred to the Ito species, rather than to the European species of Dietel as has been the practice heretofore.

Melampsoropsis: See CHRYSOMYXA .

Mesopsora hypericorum (Wint.) Diet.: See MELAMPSORA HYPERICORUM Wint.

Micropuccinia: See PUCCINIA

### MILESIA

In considering the problem of Milesia vs. Milesina it has been decided that the former more nearly conforms to the spirit of the present code. A discussion of the problem is found in Faull's Monograph (Contrib. Arnold Arbor. 2: 5-11. 1932).

MILESIA ACUTA Faull Jour. Arnold Arb. 37: 314-315. 1956. On Woodwardia fimbriata Sm.: California. Based on uredia only.

MILESIA AUSTRALIS Arth. ex Faull Contrib. Arnold Arbor. 2: 41-42. 1932. Milesia australis Arth. Bull. Torr. Bot. Club 51: 53. 1924. Telia not described.

Faull (loc. cit. p. 43) recognizes forma typica and f. irregularis.

Milesia consimilis Arth.: See UREDO CONSIMILIS (Arth.) Cumm.

Milesia columbiensis (Diet.) Arth. Puerto Rican material referred here in error. See  $\underline{M}$ . insularis Faull

MILESIA DARKERI Faull Contrib. Arnold Arbor. 2: 46, 1932.

MILESIA DILATATA Faull Contrib. Arnold Arbor. 2: 49. 1932.

MILESIA FRUCTUOSA Faull Contrib. Arnold Arbor. 2: 51-52. 1932.

Milesia intermedia Faull Contrib. Arnold Arbor. 2: 64-66. 1932.

MILESIA INSULARIS Faull Contrib. Arnold Arbor. 2: 76. 1932.

Telia are unknown for this species. Its transfer to <u>Uredo</u> was overlooked (Mycologia 48: 601-608, 1956.)

Milesia intermedia Faull: See M. FRUCTUOSA Faull

- Milesia kriegeriana (Magn.) Arth. A nomen confusum. See M. FRUCTUOSA Faull and M. MARGINALIS Faull et W. R. Watson
- MILESIA LAEVIUSCULA (Diet. et Holw.) Faull Contrib. Arnold Arbor. 2: 95. 1932. Uredo laeviuscula Diet. et Holw. Erythea 2: 127. 1894. The type has telia.

Uredo laeviuscula Diet. et Holw. Erythea 2: 127. 1894. The type has telia. Hyalopsora laeviuscula Arth. No. Amer. Flora 7: 113. 1907.

MILESIA MARGINALIS Faull et W. R. Watson in Faull Contrib. Arnold Arbor. 2: 69-71. 1932.

Milesia polypodophila Faull : See M. PYCNOGRANDIS Arth.

MILESIA POLYSTICHI Wineland ex Faull Contrib. Arnold Arbor. 2: 108-109. 1932.

Milesia polystichi Wineland in Jacks. Mem. Brooklyn Bot. Garden
1: 214. - 1918. Telia not described.

MILESIA PYCNOGRANDIS Arth. No. Amer. Flora 7: 685. 1925.

Peridermium pycnogrande Bell Bot. Gaz. 77: 24. 1924. See NOTE
1, p. 110.

Uredinopsis polypodophila Bell Bot. Gaz. 77: 25. 1924. Uredia only described.

Milesia polypodophila Faull Contrib. Arnold Arbor. 2:89-90. 1932.

MILESIA VOGESIACA Faull Contrib. Arnold Arbor. 2:103-104. 1932.

Milesina vogesiaca Syd. Ann. Mycol. 8:491. 1910. Uredia only described.

Necium farlowii Arth.: See MELAMPSORA FARLOWII (Arth.) J. J. Davis

Neoravenelia holwayi (Diet.) Long: See RAVENELIA HOLWAYI Diet.

Neoravenelia subtortuosae (Long) Arth.: See RAVENELIA SUBTORTUOSAE Long

Nephlyctis conjuncta (Diet. et Holw.) Arth.: See PROSPODIUM CONJUNCTUM (Diet. et Holw.) Cumm.

Nephlyctis transformans (Ell. et Ev.) Arth.: See PROSPODIUM TRANSFORMANS (Ell. et Ev.) Cumm.

Nigredo: See UROMYCES

NYSSOPSORA CLAVELLOSA (Berk.) Arth. No. Amer. Flora 7: 180. 1912.

NYSSOPSORA ECHINATA (Lév.) Arth. Res. Sci. Congr. Bot. Vienne, p. 342. 1906.

OLIVEA CAPITULIFORMIS Arth. Mycologia 9: 61. 1917. Uredo capituliformis P. Henn. Hedwigia 34: 97. 1895. See NOTE 1, p. 110.

OLIVEA PETITIAE Arth. Mycologia 9: 62. 1917.

\*PERIDERMIUM APPALACHIANUM Hepting et Cumm. Phytopath. 42: 115. 1952.
On Pinus virginiana Mill.: North Carolina, Tennessee, Virginia.

PERIDERMIUM COLORADENSE (Diet.) Arth. et Kern Bull. Torr. Bot. Club 33: 426. 1906.

PERIDERMIUM EPHEDRAE Cke. Indian Forester 3: 95. 1877.

PERIDERMIUM GUATEMALENSE Arth. et Kern Mycologia 6: 121. 1914.

Peridermium ingenuum Arth.: See PUCCINIASTRUM ARCTICUM Tranz.

\*\*PERIDERMIUM MONTEZUMAE Cumm. Bull. Torr. Bot. Club 67: 613. 1940.
On Pinus oocarpa Schiede, P. montezumae Lamb.: Guatemala, Honduras.

Peridermium parksianum Faull: See CHRYSOMYXA PIPERIANA Sacc.

PERIDERMIUM RUGOSUM Jacks. in Arth. No. Amer. Flora 7: 646. 1924.

PERIDERMIUM WEIRII Arth. No. Amer. Flora 7: 645, 1924.

Phakopsora aeschynomenis Arth.: See UREDO AESCHYNOMENIS Arth.

\*\*PHAKOPSORA ANTIGUENSIS Kern et Thurst. ex Cumm. Mycologia 48: 604. 1956. Uredo antiguensis Cumm. Bull. Torr. Bot. Club 67: 613. 1940. See NOTE 1, p. 110.

> Phakopsora antiguensis Kern et Thurst. Mycologia 36: 508. 1944. Latin diagnosis not provided.

On Acalypha guatemalensis Pax. et Hoffm.: Guatemala

PHAKOPSORA BURSERAE (Syd.) Thirum. et Kern Mycologia 41: 287. 1949.

To completely validate this binomial, a Latin diagnosis is necessary.

Physopella burserae Syd. Ann. Mycol. 23: 321. 1925. Telia not reported, but now known to be present on type.

PHAKOPSORA CHERIMOLIAE Cumm. Mycologia 48: 604. 1956. Uredo cherimoliae Lagh. Bull. Soc. Myc. France 11: 215. 1895. See NOTE 1, p. 110.

Physopella cherimoliae Arth. Rés. Sci. Congr. Bot. Vienne, p. 338, 1906. Based on uredia.

Phakopsora cherimoliae Cumm. Bull. Torr. Bot. Club 68: 467. 1941. Latin diagnosis not provided.

Phakopsora crotonis (Cke.) Arth.: See BUBAKIA CROTONIS (Burr.) Arth.

Phakopsora desmium (Berk. et Br.) Cumm.: See PHAKOPSORA GOSSYPII (Arth.) Hirat. f.

Phakopsora dominicana Kern; See BAEODROMUS DOMINICANA (Kern) Thirum, et Kern

PHAKOPSORA FENESTRALA (Arth.) Arth. Bull. Torr. Bot. Club 44: 508. 1917. Schroeteriaster fenestrala Arth. Mycologia 8: 24. 1916.

PHAKOPSORA GOSSYPII (Arth.) Hirat. f. Uredin. Studies, p. 266. Oct. 10, 1955. Aecidium desmium Berk. et Br. Jour. Linn. Soc. Bot. 14: 95. 1873. See NOTE 1, p. 110.

Uredo gossypii Lagh. Jour. Myc. 7: 48. 1891. See NOTE 1, p. 110. Kuehneola gossypii Arth. No. Amer. Flora 7: 187. 1912. Cerotelium desmium Arth. No. Amer. Flora 7: 698. 1925. Phakopsora desmium Cumm. Bull. Torr. Bot. Club 72: 206. 1945. Phakopsora gossypii Dale Commonwealth Myc. Inst. Myc. Paper 60: 4. Dec. 1955.

PHAKOPSORA JATROPHICOLA Cumm. Mycologia 48: 604. 1956.
Uredo jatrophicola Arth. Mycologia 7: 331. 1915.
Phakopsora jatrophicola Cumm. Bull. Torr. Bot. Club 64: 43. 1937.
Latin diagnosis not provided.

Phakopsora mexicana Arth.: See BUBAKIA MEXICANA Arth.

PHAKOPSORA PACHYRHIZAE Syd. Ann. Mycol. 12: 108. 1914. Phakopsora vignae Arth. Bull. Torr. Bot. Club 44: 509. 1917. PHAKOPSORA TECTA Jacks. et Holw. in Jacks. Mycologia 18: 148. 1926. Uredo commelyneae Kalchbr. Grevillea 11: 24. 1882. Phakopsora commelinae Gäumann Bull. Jard. Bot. Buitenzorg Ser. 3, 5: 4-5. 1922. Based on uredia.

Phakopsora vignae (Bres.) Arth.: See P. PACHYRHIZAE Syd.

Phakopsora vitis (Thuem.) Syd.: See ANGIOPSORA AMPELOPSIDIS (Diet. et Syd.)
Thirum. et Kern

\*PHAKOPSORA ZIZYPHI-VULGARIS Diet. Ann. Mycol. 8: 469. 1910. On Zizyphus jujuba Mill., Z. mauritana Lam.: Florida.

PHRAGMIDUM ALASKANUM (Arth.) Syd. Monogr. Ured. 3: 155, 1912.

PHRAGMIDIUM AMERICANUM (Pk.) Diet. Hedwigia 44: 124. 1905.

PHRAGMIDIUM ANDERSONII Shear Bull. Torr. Bot. Club 29: 453. 1902.

\*PHRAGMIDIUM ARCTICUM Lagh. ex Liro Bidr. Finl. Nat. Folk 65: 419. 1908.
On Rubus acaulis Michx.: Quebec.

PHRAGMIDIUM BILOCULARE Diet. et Holw. in Diet. Bot. Gaz. 19: 305. 1894.

Phragmidium disciflorum (Tode) James: See P. MUCRONATUM (Pers.) Schlecht.

PHRAGMIDIUM FUSIFORME Schroet. Abh. Schles. Ges. Vaterl. Cult., Nat. Abth. 1869-72: 24. 1870.

Phragmidium rosae-acicularis Liro Bidr. Finl. Nat. Folk 65: 428.

1908.

\*\*PHRAGMIDIUM GUATEMALENSE Cumm. Bull. Torr. Bot. Club 67: 609. 1940.
On Potentilla heterosepala Fritsch: Guatemala.

PHRAGMIDIUM HORKELIAE Garrett Fungi Utah. No. 112. 1907.

PHRAGMIDIUM IVESIAE Syd. Ann. Mycol. 1: 329. 1903.

PHRAGMIDIUM JONESII Diet. Hedwigia 44: 128. 1905.

PHRAGMIDIUM MONTIVAGUM Arth. Torreya 9: 24. 1909.

PHRAGMIDIUM MUCRONATUM (Pers.) Schlecht. Fl. Berol. 2:156. 1824.

Puccinia mucronata rosae Pers. Syn. Meth. Fung., p. 230. 1801.

Phragmidium disciflorum (Tode) James Contrib. U. S. Nat. Herb.

3:276. 1895. Based on a pre-starting point name for an imperfect state.

PHRAGMIDIUM OCCIDENTALE Arth. in Greene Pl. Baker. 2: 3. 1901.

PHRAGMIDIUM PECKIANUM Arth, No. Amer. Flora 7: 164, 1912.

PHRAGMIDIUM POTENTILLAE (Pers.) Karst. Bidr. Finl. Nat. Folk 31: 49. 1879.

Phragmidium rosae-acicularis Liro: See P. FUSIFORME Schroet.

PHRAGMIDIUM ROSAE-ARKANSANAE Diet. Hedwigia 44: 333. 1905.

PHRAGMIDIUM ROSAE-CALIFORNICAE Diet. Hedwigia 44: 125. 1905.

- PHRAGMIDIUM ROSAE-PIMPINELLIFOLIAE Diet. Hedwigia 44: 339. 1905.

  Phragmidium subcorticium Wint. in Rabh. Krypt.-Fl. Ed. 2, I,

  1: 228. 1882. (pro parte). Material formerly under this name belongs partly to the above species and partly to P. mucronatum.
- PHRAGMIDIUM ROSICOLA (Ell. et Ev.) Arth. Manual Rusts U. S. and Canada, p. 89. 1934.

  Uromyces rosicola Ell. et Ev. Amer. Nat. 31: 427. 1897.

  Ameris rosicola Arth. Rés. Sci. Congr. Bot. Vienne, p. 342, 1906.
- PHRAGMIDIUM RUBI-IDAEI (DC.) Karst. Bidr. Finl. Nat. Folk 31: 52. 1879.

PHRAGMIDIUM RUBI-ODORATI Diet. Hedwigia 44: 120, 1905.

PHRAGMIDIUM SPECIOSUM (Fr.) Cke. Grevillea 3: 171. 1875.

Phragmidium subcorticium Wint.: See P. ROSAE-PIMPINELLIFOLIAE Diet.

\*PHRAGMIDIUM TUBERCULATUM J. Muell. Ber. Deutsch. Bot. Ges. 3: 391. 1885.

On Rosa sp.: Connecticut, Alaska.

PHRAGMIDIUM VIOLACEUM (C. F. Schultz) Wint. Hedwigia 19:54, 1880.

On Rubus sp.: Mississippi. The record is based on a specimen submitted by the late L. E. Miles. The method of introduction and the possible persistence of the fungus is unknown.

PHRAGMOPYXIS ACUMINATA (Long) Syd. Monogr. Ured. 3: 160. 1915.

\*PHRAGMOPYXIS DEGLUBENS (Berk. et Curt.) Diet. in Engler et Prantl. Nat. Pflanzenf. 1 (1\*\*): 70. 1897.

On Benthamantha edwardsii (A. Gray) Kuntze: Arizona.

Physopella aeschynomenis Arth.: See UREDO AESCHYNOMENIS Arth.

Physopella artocarpi (Berk. et Br.) Arth.: See UREDO ARTOCARPI Berk. et Br.

Physopella burserae Syd.: See PHAKOPSORA BURSERAE Thirum. et Kern

Physopella fici (Cast.) Arth.: See CEROTELIUM FICI (Butl.) Arth.

Physopella ficina (Juel) Arth.: See UREDO FICINA Juel

Physopella vitis (Thuem.) Arth.: See ANGIOPSORA AMPELOPSIDIS (Diet. et Syd.) Thirum. et Kern

PILEOLARIA BREVIPES Berk, et Rav. in Berk, Grevillea 3: 58, 1874.

Uromyces toxicodendri Berk, et Rav. in Berk, Grevillea 3: 56, 1874.

Uredia only described.

Pileolaria toxicodendri Arth. No. Amer. Flora 7: 147, 1907.

PILEOLARIA EFFUSA Pk. Bot. Gaz. 7: 55. 1882.

Discospora effusa Arth. No. Amer. Flora 7: 149, 1907.

Pileolaria extensa Arth.: See URAECIUM EXTENSUM (Arth.) Cumm.

\*\*PILEOLARIA INCRUSTANS (Arth. et Cumm.) Thirum. et Kern Bull. Torr.
Bot. Club 82: 105. 1955.
Atelocauda incrustans Arth. et Cumm. Ann. Mycol. 31: 41. 1933.

On Lonchocarpus sp.: Panama.

- Pileolaria mexicana Arth.: See UREDO MEXICANA (Arth.) Cumm.
- PILEOLARIA PATZCUARENSIS (Holw.) Arth. No. Amer. Flora 7: 148, 1907.
- \*\*PILEOLARIA STANDLEYI Cumm. Bull. Torr. Bot. Club 70: 73. 1943. On Pistacia mexicana H. B. K.: Guatemala.
  - Pileolaria toxicodendri (Berk, et Rav.) Arth.: See P. BREVIPES Berk, et Rav.
  - POLIOMA NIVEA (Holw.) Arth. Jour. Mycol. 13: 29. 1907. Puccinia nivea Holw. Jour. Mycol. 11: 158. 1905.
- \*\*POLIOMA ROBUSTA J. W. Baxter et Cumm. Bull. Torr. Bot. Club 78: 53.
  - On Salvia compacta Kuntze: Mexico.
  - POLIOMA UNILATERALIS (Arth.) J. W. Baxter et Cumm. Bull. Torr. Bot. Club 78: 54. 1951.
    - Uredo unilateralis Arth. Bull. Torr. Bot. Club 45: 155. 1918. The type bears telia.
    - Puccinia unilateralis Cumm. Bull. Torr. Bot. Club 67: 67. 1940.
  - Poliotelium dolichosporum (Diet. et Holw. ) Mains: See UROMYCES DOLICHOSPORUS Diet. et Holw.
  - PROSPODIUM AEQUINOCTIALE (Holw.) Cumm. Lloydia 3: 22. 1940. Puccinia aequinoctialis Holw. Ann. Mycol. 3: 22. 1905.
  - PROSPODIUM AMPHILOPHII (Diet. et Holw.) Arth. Jour. Myc. 13: 31. 1907.
- \*PROSPODIUM APPENDICULATUM (Wint.) Arth. Jour. Mycol. 13:31. 1907. On Tecoma stans (L.) H. B. K.: Florida, Texas.
- \*\*PROSPODIUM APPENDICULATUM (Wint.) Arth. var. ABORTIVUM Cumm.
  Lloydia 3: 36. 1940.
  - On Tecoma stans (L.) H. B. K.: Jamaica.
  - PROSPODIUM BAHAMENSE Arth. Bull. Torr. Bot. Club 34: 587. 1908.
  - PROSPODIUM CONJUNCTUM (Diet. et Holw.) Cumm. Lloydia 3: 61. 1940. Nephlyctis conjuncta (Diet. et Holw.) Arth. No. Amer. Flora 7: 163. 1912.
- \*\*PROSPODIUM CONSTRICTUM Cumm. Lloydia 3: 29. 1940.
  On Anemopaegma belizeanum Blake: British Honduras.
- \*\*PROSPODIUM COURALIAE Syd. Ann. Mycol. 23: 320. 1925.
  On Tabebuia pentaphylla (L.) Hemsl.: British Honduras, Costa Rica.
- \*\*PROSPODIUM CYDISTAE Mains Carnegie Inst. Wash. Publ. 261: 98. 1935. On Cydista sp.: Guatemala.
  - PROSPODIUM DEPALLENS (Arth. et Holw.) Cumm. Lloydia 3: 62. 1940.
    Puccinia depallens Arth. et Holw. in Arth. Mycologia 10: 139. 1918.
  - PROSPODIUM ELATIPES (Arth. et Holw.) Cumm. Lloydia 3: 21. 1940.

    Puccinia elatipes Arth. et Holw. in Arth. Mycologia 10: 133. 1918.
- \*PROSPODIUM LIPPIAE (Speg.) Arth. No. Amer. Flora 7: 161. 1918. On Lippia ligustrina (Lag.) Britt.: Arizona.

- PROSPODIUM PERMAGNUM (Arth. et Holw.) Cumm. Lloydia 3: 62. 1940.
  Puccinia permagna Arth. et Holw. in Arth. Mycologia 10: 134. 1918.
- \*\*PROSPODIUM PITHECOCTENII (Paz.) Cumm. Lloydia 3: 25. 1940. On Pithecoctenium echinatum (Jacq.) K. Schum.: Costa Rica, Cuba.
- \*PROSPODIUM PLAGIOPUS (Mont.) Arth. No. Amer. Flora 7: 162. 1912. On Tabebuia guayacan (Seem.) Hemsl.: Florida
- \*\*PROSPODIUM TABEBUIAE Kern Mycologia 20: 63. 1928.

  On Tabebuia berterii (DC.) Britt., T. pentaphylla (L.) Hemsl., T.? platyantha (Griseb.) Britt.: Puerto Rico, Dominican Republic.
- \*\*PROSPODIUM TECOMICOLA (Speg.) Jacks. et Holw. in Jacks. Mycologia 24: 94. 1932.

On Tabebuia heterotricha (DC.) Hemsl.: Honduras.

\*PROSPODIUM TRANSFORMANS (Ell. et Ev.) Cumm. Lloydia 3: 66. 1940.
Nephlyctis transformans (Ell. et Ev.) Arth. Jour. Myc. 13: 31. 1907.
On Tecoma stans (L.) H. B. K.: Florida.

PROSPODIUM TUBERCULATUM (Speg.) Arth. No. Amer. Flora 7: 161. 1912.

PUCCINIA ABERRANS Pk. Bot. Gaz. 4: 217. 1879.

PUCCINIA ABREPTA Kern Mycologia 11: 140. 1919.

PUCCINIA ABRUPTA Diet. et Holw. in Diet. Hedwigia 37: 208. 1898.

PUCCINIA ABSICCA Jacks. et Holw. in Arth. Mycologia 10: 144. 1918.

Puccinia absinthii (Hedw. f.) DC.: See P. TANACETI DC.

PUCCINIA ACETOSAE Koern. Hedwigia 15: 184. 1876. Uredo acetosae Schum. Enum. Pl. Saell. 2: 231. 1803. See NOTE 1, p. 110.

PUCCINIA ACNISTI Arth. Bot. Gaz. 65: 470. 1918.

PUCCINIA ACROPHILA Pk. Bot. Gaz. 6: 227. 1881.

PUCCINIA ADDUCTA Arth. Bull. Torr. Bot. Club 45: 148. 1918.

PUCCINIA ADOXAE Hedw. f. ex DC. Fl. Fr. 2: 220. 1805.

PUCCINIA AEGOPOGONIS Arth. et Holw. in Arth. Amer. Jour. Bot. 5: 467. 1918.

PUCCINIA AEMULANS Syd. Ann. Mycol. 4: 31. 1906.

Puccinia aequinoctialis Holw.: See PROSPODIUM AEQUINOCTIALE (Holw.) Cumm.

PUCCINIA AGNITA Arth, Bull. Torr. Bot. Club 42: 590. 1915.

PUCCINIA AGNITIONALIS Jacks. et Holw. in Jacks. Mycologia 24: 108. 1932. Jamaican reports of  $\underline{P}$ . beckii Mayor belong here.

PUCCINIA AGRIMONIAE (Arth.) Arth. Manual Rusts U. S. and Canada, p. 295. 1934.

Puccinia airae Mayor et Cruch.: See PUCCINIA DESCHAMPSIAE Arth.

- \*\*PUCCINIA ALAMEDENSIS J. W. Baxter Lloydia 14: 213. 1951. On Salvia tiliaefolia Vahl: Guatemala.
  - PUCCINIA ALBULENSIS Magn. Ber. Deutsch. Bot. Ges. 8:169. 1890.
  - PUCCINIA ALETRIDIS Berk. et Curt. in Berk. Grevillea 3: 52. 1874.
- \*\*PUCCINIA ALIA Jacks. et Holw. in Jacks. Mycologia 24: 137. 1932. On Baccharis trinervis (Lam.) Pers.: Guatemala.
  - PUCCINIA ALLII Rud. Linnaea 4: 392. 1829.

    Uredo porri Sow. Engl. Fungi, Tab. 411. 1810.

    Puccinia porri Wint. in Rabh. Krypt.-Fl. Ed. 2, I, 1: 200. 1882.
- \*\*PUCCINIA AMETABLETA Syd. Ann. Mycol. 23: 314. 1925. On Thevetia neriifolia L.: Costa Rica.
- \*PUCCINIA AMMOPHILINA Mains ex Cumm. Mycologia 48: 604. 1956. Uredo ammophilina Kleb. Krypt.-Fl. Mark Brandenb. Va: 882. 1914. See NOTE 1, p. 110.

Puccinia ammophilina Mains Bull. Torr. Bot. Club 66: 617. 1939. Telia described, but without Latin diagnosis.

On Ammophila arenaria (L.) Link, A. breviligulata Fern.: Michigan, Oregon. Hylander, Jørstad, and Nannfeldt (loc. cit., p. 67) reduce this species to synonymy with P. pygmaea Eriks.

PUCCINIA AMPHIGENA Diet. Hedwigia 34: 291. 1895.

Aecidium yuccae Arth. Bull. Torr. Bot. Club 49: 194. 1922.

This synonymy established by Baxter (Proc. Iowa Acad. Sci. 62: 94-97. 1955.)

PUCCINIA AMPHISPILUSA Diet. et Holw. in Diet. Erythea 3: 79. 1895.

Puccinia amphiospora Cumm.: See P. HYPTIDIS-MUTABILIS Mayor

Puccinia ancizari in No. Amer. Flora 7: 476. 1921 (Non Mayor): See P. INTERJECTA Jacks.

PUCCINIA ANDINA Diet. et Neger in Engler's Bot. Jahrb. 27: 4. 1899.

PUCCINIA ANDROPOGONIS Schw. Trans. Amer. Phil. Soc. II 4: 295. 1832. Aecidium onobrychidis Burr. Bot. Gaz. 9: 189. 1884.

Aecidium polygalinum Pk. Bot. Gaz. 6: 275. 1881.

Aecidium xanthoxyli Pk. Bot. Gaz. 6: 275. 1881.

Aecidium aesculi Ell. et Kell. Bull. Torr. Bot. Club 11: 114. 1884. Cultures by Baxter (Plant Disease Reporter 39: 658. 1955.)

established the perfect state of this Aecidium.

Arthur (Manual Rusts U. S. and Canada, pp. 121-122. 1934) sets up nine varieties based largely on aecial hosts and only partly on morphology Cummins (Uredineana 4: 60. 1953) is convinced that "Arthur's varieties are not tenable for the most part."

PUCCINIA ANEMONES-VIRGINIANAE Schw. Schr. Nat. Ges. Leipzig 1: 72. 1822.

PUCCINIA ANGELICAE (Schum.) Fckl. Jahrb. Nass. Ver. Nat. 23-24: 52. 1870. Uredo angelicae Schum. Enum. Pl. Saell. 2: 233. 1803. Based on telia.

PUCCINIA ANGULATA Diet. et Neger in Engler's Bot. Jahrb. 24: 156. 1897.

PUCCINIA ANGUSTATA Pk. Bull. Buffalo Soc. Nat. Sci. 1: 67. 1873.

Arthur (Manual Rusts U. S. and Canada, p. 195-196.) sets up three varieties based on hosts in large part.

PUCCINIA ANISACANTHI Diet. et Holw. in Holw. Bot. Gaz. 31: 329. 1901.

PUCCINIA ANODAE Syd. Monogr. Ured. 1: 475. 1903.

Puccinia anomala Rostr.: See P. HORDEI Otth

PUCCINIA ANTHEPHORAE Arth. et J. R. Johnston Mem. Torr. Bot. Club 17:137. 1918.

Puccinia antioquiensis Mayor: See P. SUBCORONATA P. Henn.

PUCCINIA ANTIRRHINI Diet. et Holw. in Diet. Hedwigia 36: 298. 1897.

PUCCINIA APOCYNI Diet. et Holw. in Holw. Bot. Gaz. 24: 33. 1897.

PUCCINIA ARABICOLA Ell. et Ev. Jour. Myc. 6:119. 1891.

PUCCINIA ARACHIDIS Speg. Anal. Soc. Cien. Argent. 17: 90. 1884.

PUCCINIA ARALIAE Ell. et Ev. Jour. Myc. 6: 120. 1891.

PUCCINIA ARECHAVALETAE Speg. Anal. Soc. Cien. Argent. 12:67. 1881.

PUCCINIA ARENARIAE (Schum.) Wint, Hedwigia 19: 38. 1880. Uredo arenariae Schum. Enum. Pl. Saell. 2: 232. 1803. Based on telia.

Puccinia arenariicola Jacks.: See P. MODICA Holw.

PUCCINIA AREOLATA Diet. et Holw. in Diet. Bot. Gaz. 19: 304. 1894.

Puccinia nephrophyllidii Mains Bull. Torr. Bot. Club 66: 620. 1939.

Anderson (Iowa State Coll. Jour. Sci. 26:514. 1952) finds the host involved here is Caltha biflora DC. rather than Nephrophyllidium crista-galli (Menz.) Gilg. and reduces the species to synonymy.

PUCCINIA ARGENTATA (Schultz) Wint. Hedwigia 19: 38. 1880.

Aecidium argentatum Schultz Prodr. Fl. Starg., p. 454. 1806.

The type specimen has telia.

PUCCINIA ARISTIDAE Tracy Jour. Myc. 7: 281. 1893.

Puccinia buchloes Schofield in Webber Report Nebr. State Bd.

Agric. 1889: 68. 1890.

Arthur rejects this name (Manual Rusts U. S. and Canada, p. 159. 1934) on the grounds that the host was misdetermined and the name itself little known. Under the Code this reasoning is erroneous. However the fungus involved here was actually described as Puccinia sp. and the binomial P. buchloes supplied provisionally later. Hence it may be rejected under the provisions of Art. 43 of the Code.

PUCCINIA ARNICALIS Pk. Bot. Gaz. 6: 227. 1881.

PUCCINIA ARRACACHAE Lagh. et Lindr. in Lindr. Medd. Stockh. Hogsk. Bot. Inst. 4 (9): 5. 1901.

Puccinia arracacharum (Lindr.) Arth. Amer. Jour. Bot. 5: 476. 1918.

Puccinia arracacharum (Lindr.) Arth.: See P. ARRACACHAE Lagh. et Lindr.

\*PUCCINIA ARTEMISIAE-NORVEGICAE Tranz, et Woron. Publ. Riabouchinsky Exped., Bot. 2: 563. 1914.

On Artemisia arctica Less.: Alaska.

- PUCCINIA ARTHURELLA Trott. in Sacc. Syll. Fung. 23: 694. 1925.

  Puccinia proximella Arth. Bull. Torr. Bot. Club 47: 471. 1920.

  (non Sydow, 1912).
- PUCCINIA ARTHURIANA Jacks. Bot. Gaz. 65: 295. 1918.
- PUCCINIA ARTHURII Syd. Monogr. Ured. 1: 775. 1904.

  Probably distinct from P. gymnotrichis P. Henn. Specimens referred here (No. Amer. Flora 7: 775. 1926.) belong under P. arthurii.
- PUCCINIA ARUNDINARIAE Schw. Schr. Nat. Ges. Leipzig 1: 72. 1822.

  Aecidium smilacis Schw. Schr. Nat. Ges. Leipzig 1: 69. 1822.

  This Aecidium is assigned here on the basis of an unpublished culture by Cummins.
- Puccinia arundinellae (Arth. et Holw.) Barth.: See UREDO ARUNDINELLAE Arth. et Holw.
- PUCCINIA ASARINA Kunze in Kunze et Schmidt Myk. Hefte 1:70. 1817.
- PUCCINIA ASPARAGI DC. Fl. Fr. 2:595. 1805.
- PUCCINIA ASPERIOR Ell. et Ev. Bull. Washburn Lab. Nat. Hist. 1: 3. 1884.
- PUCCINIA ASTERIS Duby Bot. Gall. 2:888. 1830. See also P. CNICI-OLERACEI Pers. ex Desm.
- Puccinia atra Diet. et Holw.: See P. ESCLAVENSIS Diet. et Holw.
- PUCCINIA ATROFUSCA (Dudl. et C. H. Thompson) Holw. Jour. Myc. 10: 228. 1904. Uromyces atrofusca Dudl. et C. H. Thompson Jour. Myc. 10: 55. 1904. Telia are present on the type, though not described.
- PUCCINIA ATROPUNCTA Pk. et G. W. Clint. in Pk. Bot. Gaz. 4: 171. 1879.
- \*PUCCINIA AVOCENSIS Cumm. et Greene in Greene Trans. Wis. Acad. Sci., Arts, Letters 43: 177. 1954.

On Stipa spartea Trin.: Wisconsin. See also Aecidium avocense Cumm. et Greene

PUCCINIA AXINIPHYLLI Arth. Bot. Gaz. 40: 201. 1905.

PUCCINIA BACCHARIDIS Diet. et Holw. in Diet. Erythea 1: 250, 1893.

PUCCINIA BACCHARDIS-HIRTELLAE Diet. et Holw. in Holw. Bot. Gaz. 31: 331. 1901.

PUCCINIA BACCHARIDIS-MULTIFLORAE Diet, et Holw, in Holw, Bot, Gaz, 31:331, 1901.

PUCCINIA BADIA Holw, Jour. Myc. 11: 158. 1905.

PUCCINIA BALLOTAEFLORAE Long Bull. Torr. Bot. Club 29: 116. 1902.

PUCCINIA BALSAMORRHIZAE Pk. Bull. Torr. Bot. Club 11: 49. 1884.

PUCCINIA BARBATULA Arth. et J. R. Johnston Mem. Torr. Bot. Club 17: 144. 1918.

PUCCINIA BARDANAE (Wallr.) Cda. Icones Fung. 4: 17. 1840.

Hylander, Jørstad, and Nannfeldt (loc. cit., p. 40) consider this a synonym of P. calcitrapae DC.

- Puccinia bartholomaei Diet.: See P. CHLORIDIS Speg.
- PUCCINIA BASIPORULA Jacks. et Holw. in Arth. Amer. Jour. Bot. 5: 528. 1918.
- PUCCINIA BATESIANA Arth. Bull. Torr. Bot. Club 28: 661, 1901.
- Puccinia beckii Mayor: See P. AGNITIONALIS Jacks. ex Holw.
- \*\*PUCCINIA BELIZENSIS Mains Contrib. Univ. Mich. Herb. 1:8. 1939. On Olyra latifolia L.: British Honduras.
  - PUCCINIA BERBERIDIS-TRIFOLIAE Diet. et Holw. in Holw. Bot. Gaz. 31: 328. 1901.
  - PUCCINIA BIOCELLATA Vest. ex Cumm. Mycologia 48: 606. 1956. Uredo plucheae Syd. Ann. Myc. 1: 333. 1903. Uredo biocellata Arth. Bull. Torr. Bot. Club 33: 517. 1906. See NOTE 1, p. 110.
    - Puccinia biocellata Vest. Micromycetes Rar. Sel. Nos. 1267, 1368. 1908. Teliospores are present in Vestergren's specimens but were not described.
    - Puccinia plucheae Arth. Bull. Torr. Bot. Club 49: 194. 1922. Based on uredia.
  - PUCCINIA BIPORULA J. W. Baxter Llcydia 14: 218. 1951. Uredo biporula Arth. Bull. Torr. Bot. Club 46: 121. 1919.
  - PUCCINIA BISTORTAE (Strauss) DC. Fl. Fr. 5: 61. 1815. Uredo polygoni bistortae Strauss Ann. Wett. Ges. 2: 103. 1810. Strauss describes telia under this name.
  - PUCCINIA BLASDALEI Diet. et Holw. in Diet. Erythea 1: 248. 1893.

    This species has been sometimes considered as synonymous with

    P. allii Rud. See No. Amer. Flora 7: 373 and Manual Rusts U.S.
    and Canada, p. 223.
  - PUCCINIA BLYTTIANA Lagh. Bot. Notiser 1892: 169. 1892.

    Puccinia ranunculi Blytt Forh. Vid.-Selsk. Christ. 1882.(5).

    12. 1882 (nomen provisorium).
  - PUCCINIA BOLLEYANA Sacc. Syll. Fung. 9: 303. 1891.
  - PUCCINIA BOMAREAE P. Henn. Hedwigia 35: 242. 1896.
  - PUCCINIA BOUTELOUAE (Jennings) Holw. Ann. Mycol. 3; 20. 1905. See also P. exasperans Holw.
  - PUCCINIA BOUVARDIAE Griff. Bull. Torr. Bot. Club 20: 297. 1902.
- \*\*PUCCINIA BRACHYTELA Syd. Ann. Myc. 23: 315. 1925. On Otopappus verbesinoides Benth.: Costa Rica
  - PUCCINIA BRANDEGEI Pk. Bot. Gaz. 7:44. 1882.
  - Puccinia bromicola (Mains) Guyot: See PUCCINIA RECONDITA Rob. ex Desm.
  - Puccinia bromi-maximi Guyot: See PUCCINIA RECONDITA Rob. ex Desm.

\*PUCCINIA EUCHNERAE Cumm. Mycologia 33: 385. 1941. Uredo cumula Arth. Bull. Torr. Bot. Club 49: 195. 1922. On Buchnera elongata Sw.: Florida.

\*PUCCINIA BUPLEURI Rud. Linnaea 4: 514. 1829.

On Bupleurum americanum Coult. et Rose: Alaska, Yukon.

PUCCINIA BURNETTII Griff. Bull. Torr. Bot. Club 29: 298. 1902.

\*\*PUCCINIA CACABATA Arth. et Holw. in Arth. Proc. Amer. Phil. Soc. 64: 179. 1925.

Aecidium gossypii Ell. et Ev. Erythea 5: 6. 1897.

Puccinia stakmanii Presley Phytopath. 33: 385. 1943.

See Hennen and Cummins Mycologia 48: 132-133, 1956 for a discussion of this species and its synonymy.

On Bouteloua aristidoides H. B. K., B. barbata Lag., B. parryi (Fourn.) Griff., B. rothrockii Vasey, Chloris ciliata Sw., C. polydactyla (L.) Sw.: Arizona, Texas, Florida, Bahamas, Dominican Republic, Mexico.

PUCCINIA CALCITRAPAE DC, Fl. Fr. 2: 221, 1805.

Puccinia bardanae Cda. Icon. Fung. 4: 17. 1840.

Puccinia cirsii Lasch in Rabh. Fungi Eur., No. 89. 1859. (non Kirchner 1856).

Hylander, Jørstad, and Nannfeldt (loc. cit., p. 40) adopt the above synonymy.

PUCCINIA CALEAE Arth. Bot. Gaz. 40: 201, 1905.

PUCCINIA CALOCHORTI Pk. Bot. Gaz. 6: 228, 1881.

PUCCINIA CALTHAE Link in Willd. Sp. Plant. (Ed. 4) 6 (pt. 2): 79. 1825.

Aecidium calthae Grev. Fl. Edin., p. 446. 1824. See NOTE 1, p. 110.

PUCCINIA CALTHICOLA Schroet. in Cohn Beitr. Biol. Pfl. 3:61. 1879.

Puccinia cameliae (Mayor) Arth. : See ANGIOPSORA CAMELIAE (Mayor) Mains

PUCCINIA CAMPANULAE Carm. ex Berk. Smith's Eng. Flora 5 (2): 365. 1836.

Puccinia campanulae novae-zembliae (Jørstad) Arth. : See P. NOVAE-ZEMBLIAE Jørstad

PUCCINIA CANADENSIS Arth. Bull. Torr. Bot. Club 31: 2. 1904.

PUCCINIA CANALICULATA (Schw.) Lagh. Tromsö Mus. Aarsh. 17: 51. 1894.

Puccinia cannae (Wint.) Henn.: See P. THALIAE Diet.

PUCCINIA CARICINA DC. Fl. Fr. 5: 60. 1815.

Uredo caricis Schum. Enum. Pl. Saell. 2:231. 1803. Telia present. (non U. caricis Pers. Syn. Meth. Fung., p. 225. 1801 = Cintractia caricis (Pers.) P. Magn.)

Puccinia caricis Schroet. in Cohn Krypt.-Fl. Schles. III, 1: 327. 1887. (Non P. caricis Reb. Prodr. Fl. Neomarch., p. 356. 1804.)

The above synonymy follows Hylander, Jørstad, and Nannfeldt (loc. cit. p. 41).

Puccinia paludosa Plowr. Monog. Brit. Ured. Ustil., p. 174. 1889.
Dicaeoma pediculariatum Arth. et Kern No. Amer. Flora 7: 784. 1926.
In addition to the two varieties recognized below, Arthur (Manual Rusts

U. S. and Canada, pp. 208-210. 1934) sets up five varieties under <u>Puccinia caricis</u>, based on aecial hosts and slight differences in aeciospores.

PUCCINIA CARICINA DC. var. LIMOSAE (P. Magn.) Jørstad Kgl. N. Vidensk. Selsk. Skr. 38:17. 1936.

Puccinia limosae P. Magn. Tagebl. Naturf. Vers. München 50: 199. 1877.

Puccinia karelica Tranz. Trav. Mus. Bot. Acad. Sci. St. Petersb. 2:16. 1905.

PUCCINIA CARICINA DC. var. ULIGINOSA (Juel) Jørstad Skr. Vidensk. Oslo I, 1951, (2): 30. 1952.

Puccinia uliginosa Juel Oefv. Sv. Vet. - Akad. Foerh. 51: 409. 1894.

Puccinia caricis (Schum.) Schroet.: See P. CARICINA DC.

PUCCINIA CARICIS-POLYSTACHYAE Diet. Ann. Mycol. 4: 306. 1906.

PUCCINIA CARICIS-SHEPHERDIAE J. J. Davis Trans. Wis. Acad. Sci.  $21\colon 301$ . 1924.

Aecidium arctoum Arth. Bull. Torr. Bot. Club 47: 477. 1920.

PUCCINIA CARNEGIANA Arth. Bull. Torr. Bot. Club 42: 587. 1915.

PUCCINIA CARTHAMI Cda. Icon. Fung. 4: 15. 1840.

PUCCINIA CASTILLEJAE Arth. in Blasdale Univ. Calif. Publ. Bot. 7: 133: 1919. Uredo castillejae Diet. et Holw. in Diet. Erythea 1: 247. 1893. See NOTE 1, p. 110.

PUCCINIA CAULICOLA Tracy et Gall. Jour. 4: 20. 1888.

PUCCINIA CENCHRI Diet. et Holw. in Holw. Bot. Gaz. 24: 28. 1897.

\*PUCCINIA CESATII Schroet. in Cohn Beitr. Biol. Pfl. 3:70. 1879. On Bothriochloa ischaemum (L.) Keng: Texas.

PUCCINIA CHAETOCHLOAE Arth. Bull. Torr. Bot. Club 34: 585. 1907.

PUCCINIA CHAMAESARACHAE Syd. Monogr. Ured. 1:263. 1902.

PUCCINIA CHASEANA Arth, et Fromme Torreya 15: 264, 1915,

PUCCINIA CHELONIS Diet. et Holw. in Diet. Hedwigia 36: 297. 1897.

Puccinia chichenensis Mains: See P. GUARANITICA Speg.

PUCCINIA CHLORIDIS Speg. Rev. Argent. Hist. Nat. 1: 172. 1891.

Puccinia bartholomaei Diet. Hediwgia 31: 290. 1892.

The treatment of this species follows Hennen and Cummins Mycologia 48: 146. 1956.

PUCCINIA CHONDRILLINA Bub. et Syd. Oesterr. Bot. Zeits. 51: 17. 1901.

PUCCINIA CHRYSANTHEMI Roze Bull. Soc. Myc. France 16: 92. 1900.

PUCCINIA CICUTAE Lasch in Klotzsch Herb. Myc. No. 787. 1845.

\*\*PUCCINIA CILIATA Mains Contrib. Univ. Mich. Herb. 1: 9. 1939.
On Cordia alliodora (Ruiz et Pavon) Cham.: British Honduras.

PUCCINIA CINNAMOMEA Diet, et Holw, in Diet, Bot, Gaz, 24:29, 1897.

- PUCCINIA CIRCAEAE Pers. Syn. Meth. Fung., p. 228. 1801.
- PUCCINIA CIRCINATA Arth. Amer. Jour. Bot. 5: 471. 1918.
- \*\*PUCCINIA CIRCUMDATA Mains Carnegie Inst. Wash. Publ. 461: 101. 1935.
  On Panicum fasciculatum Sw.: Cuba, Panama, Puerto Rico.
  - PUCCINIA CIRSII Lasch in Rabh. Fungi Eur. No. 89. 1859. See also P. calcitrapae DC.
  - PUCCINIA CLADII Ell. et Tracy in Ell. et Ev. Bull. Torr. Bot. Club 22:61. 1895.
  - PUCCINIA CLAVIFORMIS Lagh. Tromsö Mus. Arsh. 17: 53. 1895.

    Aecidium solanitum Schw. ex Berk. et Curt. Jour. Acad. Phil.

    II. 2: 283. 1853. Nomen nudum.

    Puccinia solanita Arth. Mycologia 14: 19. 1922.
  - \*PUCCINIA CLAYTONIICOLA Cumm. Bull. Torr. Bot. Club 79: 218. 1952. On Claytonia lanceolata Pursh: Wyoming, British Columbia.
  - PUCCINIA CLINTONII Pk. Ann. Report N. Y. State Mus. 28: 61. 1876.
  - PUCCINIA CNICI H. Mart. Prodr. Fl. Mosq. Ed. 2, p. 227. 1817.
  - PUCCINIA CNICI-OLERACEI Pers. ex Desm. Cat. Pl. Omis., p. 24. 1823.

    Puccinia asteris Duby Bot. Gall. p. 888. 1830.

    Puccinia millefolii Fckl. Jahrb. Nass. Ver. Nat. 23-24:55. 1869.

    Puccinia ptarmicae Karst. Bidr. Känned. Finl. Nat. Folk 31:41. 1879.

    Hylander, Jørstad, and Nannfeldt (loc. cit. p. 44) reduce the three species above to synonymy as indicated. This has not been followed in American practice.
  - Puccinia cockerelliana Bethel ex Arth.: See PUCCINIA RECONDITA Rob. ex Desm.
  - PUCCINIA COELOPLEURI Arth. Bull. Torr. Bot. Club 46: 116. 1919.
  - PUCCINIA COGNATA Syd. Monogr. Ured. 1: 172. 1902.
  - PUCCINIA COLLINSIAE P. Henn. Hedwigia 37: 269. 1898.

    Aecidium collinsiae Ell. et Ev. Bull. Washb. Lab. Nat. Hist. 1: 4. 1884.

    See NOTE 1, p. 110.
  - PUCCINIA COLUMBIENSIS Ell. et Ev. Proc. Acad. Nat. Sci. Phil. 1893: 153. 1893. Puccinia maculosa Schw. Trans. Amer. Phil. Soc. II, 4:295. 1832. (Non Roehling, 1813).
  - PUCCINIA COMANDRAE Pk. Bull. Torr. Bot. Club 11: 49. 1884.
  - PUCCINIA COMMELINAE Holw. Ann. Mycol. 2: 393. 1904.
  - PUCCINIA COMMUTATA Syd. Monogr. Ured. 1: 201. 1902.
  - PUCCINIA CONCINNA Arth. Bot. Gaz. 40: 205. 1905.
  - PUCCINIA CONCRESCENS Ell. et Ev. ex Arth. Mycologia 7: 240. 1915.
  - PUCCINIA CONFRAGA Arth. et Cumm. Ann. Mycol. 31: 43. 1933.
  - PUCCINIA CONGLOMERATA (Strauss) Roehling Deutsch. Fl. Ed. 2. 3 (pt. 3): 130. 1813.

Uredo conglomerata Strauss Ann. Wetter. Ges. 2: 100. 1810. Telia present on the type.

Puccinia conglomerata Schmidt et Kunze Deutsch. Schwämme 8:4. 1818.

Puccinia connersii Savile: See P. PRAEGRACILIS Arth. var. CONNERSII Savile

PUCCINIA CONOCLINII Seym. ex Burr. Bot. Gaz. 9: 191. 1884.

PUCCINIA CONSIMILIS Ell. et Ev. Jour. Myc. 6: 120. 1891.

PUCCINIA CONSOBRINA Arth. et Holw. in Arth. Mycologia 10: 129. 1918.

PUCCINIA CONSPICUA Mains Mycologia 25: 408. 1933.

Aecidium conspicuum Arth. Bull. Torr. Bot. Club 45: 153. 1918. See NOTE 1, p. 110.

PUCCINIA CONVOLVULI Cast. Obs. 1:16. 1842.

Uredo betae convolvuli Pers. Syn. Meth. Fung., p. 221. 1801. See NOTE 1, p. 110.

PUCCINIA COOPERIAE Long Bull. Torr. Bot. Club 29: 110. 1902.

PUCCINIA CORDIAE Arth. Mycologia 8: 17. 1916.

PUCCINIA CORNUTA Jacks. et Holw. in Arth. Amer. Jour. Bot. 5: 533. 1918.

PUCCINIA CORONATA Cda. Icon. Fung. 1: 6. 1837.

Arthur lists (Manual Rusts U. S. and Canada, p. 154) ten form-species or races which have not been recognized here. In addition the following four varieties have been set up.

PUCCINIA CORONATA Cda. var. AVENAE Fraser et Led. Sci. Agric. 13: 315. 1933.

PUCCINIA CORONATA Cda. var. BROMI Fraser et Led. Sci. Agric. 13:316-318. 1933.

PUCCINIA CORONATA Cda. var. CALAMAGROSTIS Fraser et Led. Sci. Agric. 13: 316. 1933.

PUCCINIA CORONATA Cda. var. ELEAGNI Fraser et Led. Sci. Agric. 13: 318-319. 1933.

\*\*PUCCINIA COSTINA Cumm. Mycologia 48: 605. 1956.

Uredo costina Syd. Ann. Mycol. 14: 355. 1916. See NOTE 1, p. 110.Puccinia costina Cumm. Mycologia 33: 381. 1941. Latin diagnosis not provided.

On Costus sp.: Costa Rica.

PUCCINIA CRANDALLII Pam. et Hume in Hume Proc. Davenport Acad. 7: 250. 1899.

PUCCINIA CRASSIPES Berk. et Curt. in Berk. Grevillea 3: 54. 1874.

PUCCINIA CREPIDIS-MONTANAE Magn. ex E. Fischer Beitr. Krypt. Schweiz 2 (2): 212. 1904.

Puccinia cressae Lagh.: See P. TUYUTENSIS Speg.

PUCCINIA CRUCIFERARUM Rudolphi Linnaea 4: 391. 1829.

PUCCINIA CRYPTANDRI Ell. et Barth. Erythea 5: 47. 1897.

Uromyces simulans Pk. Bot. Gaz. 4:127. 1879. Based on uredia only. Puccinia simulans Barth. No. Amer. Ured. No. 32. 1922.

- PUCCINIA CRYPTANTHES Diet. et Holw. in Diet. Erythea 1: 249, 1893.
- PUCCINIA CRYPTOTAENIAE Pk. Bull. Buffalo Soc. Nat. Hist. 1: 66. 1873.
- \*\*PUCCINIA CUILAPENSIS Cumm. Bull. Torr. Bot. Club 70: 74. 1943.
  On Salvia gracilis Benth., S. mocinoi Benth.: Guatemala.
  - PUCCINIA CUPHEAE Holw. Ann. Mycol. 2: 393. 1904.
  - PUCCINIA CYANI Pass. in Rabh. Fungi Eur. No. 1767. 1874.

    Uredo cyani Schleich. Pl. Crypt. Helv. No. 95. 1805. Nomen nudum.

    Uredo cyani DC. in Lam. et DC. Syn. Pl. Gall., p. 47. 1806. See NOTE 1, p. 110.
  - PUCCINIA CYNODONTIS Lacroix ex Desm. Pl. Crypt, France II No. 655. 1859.
  - PUCCINIA CYPERI Arth. Bot. Gaz. 16: 226. 1891.
  - PUCCINIA CYPERI-TAGETIFORMIS Kern Mycologia 11: 138. 1919. Uredo cyperi-tagetiformis P. Henn. Bot. Jahrb. 34: 598. 1905. See NOTE 1, p. 110.
  - PUCCINIA CYPRIPEDII Arth. et Holw. in Arth. Bull. Iowa Agric. Coll. Dept. Bot. 1884: 156. 1884.
  - Puccinia dactylidis Gäum.: See PUCCINIA GRAMINIS Pers.
  - PUCCINIA DAYI G. W. Clint. ex Pk. Ann. Report N. Y. State Mus. 28: 60. 1876.
  - PUCCINIA DECORA Diet. et Holw. in Diet. Hedwigia 37: 202. 1898.
  - PUCCINIA DEFORMATA Berk. et Curt. in Berk. Jour. Linn. Soc. 10: 357. 1869.
  - PUCCINIA DEGENER Mains et Holw. ex Cumm. Mycologia 48: 605. 1956.

    Puccinia degener Mains et Holw. in Arth. Amer. Jour. Bot. 5: 482. 1918.

    Based on uredia.

    Uredo degener Arth. No. Amer. Flora 7: 616. 1924.

    Puccinia degener Mains et Holw. ex Cumm. Bull. Torr. Bot. Club

    70: 75. 1943. Telia first described, but without Latin diagnosis.
  - PUCCINIA DELICATULA (Arth.) Sacc. et Trott. in Sacc. Syll. Fung. 21: 657. 1912.
  - PUCCINIA DELICATULA var. NIVEOIDES (Cumm.) J. W. Baxter in Baxter et Cumm. Lloydia 14: 207. 1951.

    Puccinia niveoides Cumm. Bull. Torr. Bot. Club 67: 611. 1940.

    On Salvia cinnabarina M. et G.: Guatemala.
  - PUCCINIA DELPHINII Diet. et Holw. in Diet. Hedwigia 32: 29. 1893.
  - PUCCINIA DENTARIAE (Alb. et Schw.) Fckl. Jahrb. Nass. Ver. Nat. 25-26: 295. 1871.
    - Uredo dentariae Alb. et Schw. Consp. Fung. Nisk., p. 129. 1805. Telia present.
  - Puccinia depallens Arth. et Holw.; See PROSPODIUM DEPALLENS (Arth. et Holw.) Cumm.
  - PUCCINIA DESCHAMPSIAE Arth. Bull. Torr. Bot. Club 37: 570. 1910.

    Uredo airae Lagh. Jour. de Bot. 2: 432. 1888. See NOTE 1, p. 110.

    Puccinia airae Mayor et Cruch. in Cruch. Bull. Soc. Vaud. Sci. 51: 628. 1917.

    Puccinia poae-sudeticae var. airae Arth. Manual Rusts U. S.

    and Canada, p. 151. 1934.

PUCCINIA DESMANTHODII Diet. et Holw. in Holw. Bot. Gaz. 31: 334, 1901.

PUCCINIA DETONSA Arth. et Holw. in Arth. Mycologia 10: 130. 1918.

PUCCINIA DICHELOSTEMMAE Diet. et Holw. in Diet. Erythea 3: 78. 1895.

PUCCINIA DICHONDRAE Mont. in C. Gay Hist. Fis. Polit. Chile 8: 46. 1852.

PUCCINIA DICHROMENAE Jacks, in Jacks, et Whetz, Brit. Myc. Soc. 13:16. 1928.

Uredo dichromenae Arth. Bull. Torr. Bot. Club 31: 5. 1904. See NOTE 1, p. 110.

PUCCINIA DIETELII Sacc. et Syd. in Sacc. Syll. Fung. 14: 358. 1899. Puccinia chloridis Diet. Hedwigia 31: 290. 1892. (Non Speg. 1891.)

Hennen and Cummins (Mycologia 48: 137-138. 1956) divide the species previously known as  $\underline{P}$ . chloridis Speg. into two on morphological grounds,  $\underline{P}$ . dietelii Sacc. et Syd. as above and  $\underline{P}$ . chloridis Speg. (q. v.)

PUCCINIA DIFFORMIS Kunze in Kunze et Schmidt Myk. Hefte 1:71. 1817.

PUCCINIA DIOICAE P. Magn. Amt. Ber. 50 Versammt. D. Naturf. Ärzte München, p. 199. 1877.

Puccinia extensicola Plowr. Brit. Ured. Ustil., p. 181. 1889.

We follow Hylander, Jørstad, and Nannfeldt (loc cit. p. 48) in accepting P. dioicae as the correct name for the species. Arthur (Manual Rusts U. S. and Canada, pp. 197-198. 1934) states that the species is morphologically homogeneous but recognizes ten varieties based chiefly on aecial hosts.

PUCCINIA DISCRETA Jacks. et Holw. in Jacks. Bot. Gaz. 65: 309. 1918.

PUCCINIA DISTICHLIDIS Ell. et Ev. Proc. Acad. Nat. Sci. Phil. 1893: 152. 1893.

PUCCINIA DISTORTA Holw. Ann. Mycol. 3: 22. 1905.

PUCCINIA DIUTINA Mains et Holw. in Arth. Mycologia 10: 136. 1918.

PUCCINIA DOCHMIA Berk. et Curt. Proc. Amer. Acad. 4: 126. 1858.

PUCCINIA DOLOSA Arth. et Fromme Torreya 15: 262. 1915.

Puccinia dominicana Gonz.-Frag. et Cif.: See P. LEONTIDICOLA P. Henn.

Puccinia dondiae Arth.: See P. GLOBOSIPES Pk.

PUCCINIA DOUGLASII Ell. et Ev. Proc. Acad. Nat. Sci. Phil. 1893: 152. 1893.

PUCCINIA DRABAE Rudolphi Linnaea 4: 115. 1829.

PUCCINIA DRACUNCULI Fahrendorf Ann. Mycol. 39: 181. 1941.

On <u>Artemisia dracunculoides</u> Pursh: Wisconsin west to Washington and south to New Mexico and California.

\*\*PUCCINIA DYSCHORISTES Cumm. Bull. Torr. Bot. Club 70: 75. 1943. On Dyschoriste quadrangularis (Oerst.) Kuntze: Guatemala.

PUCCINIA EATONIAE Arth. Jour. Myc. 10: 18. 1904.

Aecidium indecisum Arth. Bull. Torr. Bot. Club 47: 474. 1920.

Mains (Mycologia 24: 212-213, 1932) establishes two varieties

based on size of aeciospores and aecial hosts,  $\underline{Puccinia}$  eatoniae Arth. var. ranunculi Mains and P. eatoniae Arth. var. myosotidis  $\underline{Mains}$ .

\*PUCCINIA ECHEVERIAE Linder Mycologia 30: 667. 1938.
On Echeveria caespitosa (Haw.) DC., E. farinosa Lindl.: California.

PUCCINIA ECHINOPTERIDIS Holw. Jour. Myc. 10: 164. 1904.

PUCCINIA EFFUSA Diet. et Holw. in Diet. Erythea 3:81. 1895.

Puccinia egenula (Arth.) Barth.: See UREDO EGENULA Arth.

PUCCINIA EGREGIA Arth. Bot. Gaz. 40: 204. 1905.

PUCCINIA EGRESSA Arth. Bull. Torr. Bot. Club 46: 108. 1919.

\*\*PUCCINIA EKMANII Kern, Cif. et Thurston Ann. Mycol. 31:11. 1933. On Leersia monandra Sw.: Dominican Republic.

Puccinia elatipes Arth. et Holw.; See PROSPODIUM ELATIPES (Arth. et Holw.) Cumm.

PUCCINIA ELECTRAE Diet. et Holw. in Holw. Bot. Gaz. 31: 333. 1901.

PUCCINIA ELEOCHARIDIS Arth. Bull. Iowa Agric. Coll. Dept. Bot. 1884: 156. 1884.

PUCCINIA ELLISIANA Thuem. Bull. Torr. Bot. Club 6: 215. 1878.

PUCCINIA ELLISII De T. in Sacc. Syll. Fung. 7: 651. 1888.

PUCCINIA ELYMI West. Bull. Acad. Roy. Belge 18 (2): 409. 1951.

This species should be considered distinct from the Puccinia recondita (P. rubigo-vera) complex because of its multicellular teliospores. See Cummins and Caldwell Phytopathology 46: 81-82. 1956.

PUCCINIA ELYTRARIAE P. Henn. Hedwigia 34: 320. 1895.

PUCCINIA EMACULATA Schw. Trans. Amer. Phil. Soc. II 4: 295. 1832.

PUCCINIA EMILIAE P. Henn. Hedwigia 37: 278. 1878.

PUCCINIA ENCELIAE Diet. et Holw. in Holw. Bot. Gaz. 24: 32. 1897.

\*\*PUCCINIA ENIXA Cumm. Bull. Torr. Bot. Club 79; 220. 1952. On Baccharis braunii (Polak.) Standl.: Costa Rica.

PUCCINIA EPICAMPIS Arth. Bull. Torr. Bot. Club 28: 662. 1901.

PUCCINIA EPILOBII DC. Fl. Fr. 5: 61. 1815.

PUCCINIA ERIGENIAE (Orton) Arth. Bull. Torr. Bot. Club 48: 33. 1921.

PUCCINIA ERIOPHYLLI Jacks. Brooklyn Bot. Gard. Mem. 1:246. 1918.

\*\*PUCCINIA ERITRAENSIS Paz, in Engler's Bot. Jahrb. 17: 14. 1893. On Hyparrhenia dissoluta (Ness.) Kunth: Honduras.

PUCCINIA ERRATICA Jacks. et Holw. in Jacks. Bot. Gaz. 65: 294. 1918.

PUCCINIA ESCLAVENSIS Diet. et Holw. in Holw. Bot. Gaz. 24:29. 1897.

Puccinia atra Diet. et. Holw. in Holw. Bot. Gaz. 24:29. 1897.

(non Puccinia atra Spreng, Syst. 4:569. 1827.)

PUCCINIA ESPINOSARUM Diet. et Holw. in Holw. Bot. Gaz. 31: 332. 1901.

Puccinia euphorbiae P. Henn. var. longipes Syd.: See P. LONGIPEDICELLATA Barth.

PUCCINIA EUROTIAE Griff. Bull. Torr. Bot. Club 34: 210. 1907.

PUCCINIA EUTREMAE Lindr. Acta Soc. Fauna Fl. Fenn. 22 (3): 9. 1902.

PUCCINIA EVADENS Hark. Bull. Calif. Acad. 1: 34, 1884.

PUCCINIA EXASPERANS Holw. Ann. Mycol. 3: 21. 1905.

Arthur (Manual Rusts U.S. and Canada, p. 173. 1934.) considered this species synonymous with P. boutelouae (Jennings) Holw., but Hennen and Cummins (Mycologia 48: 140. 1956) decide that it is distinct.

PUCCINIA EXILIS Syd. Monogr. Ured. 1: 481, 1903.

PUCCINIA EXIMIA Arth, et Holw. in Arth. Amer. Jour. Bot. 5; 488, 1918.

PUCCINIA EXORNATA Arth. Bull. Torr. Bot. Club 38: 370. 1911.

PUCCINIA EXPANSA Link in Willd. Sp. Plant. 6 (2): 75. 1825.

Puccinia extensicola Plowr.: See P. DIOICAE P. Magn.

Puccinia fallaciosa Arth.: See P. FALLAX Arth.

PUCCINIA FALLAX Arth. in Mains Carnegie Inst. Wash. Publ. 461: 103. 1935.

Puccinia fallaciosa Arth. Mycologia 9: 84. 1917. (Non Thuem.)

\*\*PUCCINIA FARAMEAE Kern, Cif., et Thurston Ann. Mycol. 31:13. 1933.
On Faramea occidentalis (L.) Rich.: Dominican Republic.

PUCCINIA FARINACEA Long Bull. Torr. Bot. Club 29: 115. 1902.

Puccinia prospera Arth. Bull. Torr. Bot. Club 46: 118. 1919. See

Baxter and Cummins Lloydia 14: 219. 1951.

PUCCINIA FERGUSSONII Berk. et Br. Ann. Mag. Nat. Hist. IV. 15: 35, 1875.

PUCCINIA FEROX Diet. et Holw. in Holw. Bot. Gaz. 31: 333. 1901.

PUCCINIA FESTUCAE Plowr. Grevillea 21: 109. 1893. Uredo festucae DC. Fl. Fr. 6: 82. 1815. See NOTE 1, p. 110.

PUCCINIA FIDELIS Arth. Bull. Torr. Bot. Club 38: 369. 1911.

PUCCINIA FILIOLA Mains et Holw. in Arth. Amer. Jour. Bot. 5: 482. 1918.

PUCCINIA FILOPES Arth. et Holw. in Arth. Mycologia 10: 131. 1918.

PUCCINIA FIMBRISTYLIDIS Arth. Bull. Torr. Bot. Club 33: 28. 1906.

\*PUCCINIA FISCHERI Cruch. et Mayor Bull. Soc. Vaud. Nat. 44: 471. 1909.

Puccinia lyngei Jørstad Rept. Sci. Res. Norw. Exp. Novaya

Zemlya 1921, No. 18. 1923.

On Saxifraga oppositifolia L.: Yukon.

PUCCINIA FLACCIDA Berk, et Br. Jour. Linn. Soc. 14:91, 1873.

PUCCINIA FLAVERIAE Jacks. Mycologia 14: 117. 1922.

\*\*PUCCINIA FLAVOVIRENS Jacks. et Holw. in Jacks. Mycologia 18: 142. 1926. On Cyperus ferax Rich., C. thrysiflorus Jungh.: Guatemala, Mexico.

PUCCINIA FRASERI Arth. Bull. Torr. Bot. Club 42: 591. 1915.

PUCCINIA FRATERNA Jacks. Bot. Gaz. 65: 297. 1918.

PUCCINIA FUCHSIAE Syd. et Holw. in Syd. Ann. Mycol. 4:30. 1906.

PUCCINIA FUIRENAE Cke. Grevillea 6: 137. 1878.

PUCCINIA FUIRENICOLA Arth. ex Kern, Cif., et Thurston Ann. Mycol. 31: 13. 1933.

Puccinia fuirenicola Arth. Bull. Torr. Bot. Club 46: 109. 1919. This name is based on uredia only.

PUCCINIA FUMOSA Holw. Ann. Mycol. 3:23. 1905.

PUCCINIA FUSCATA Arth. et Holw. in Arth. Amer. Jour. Bot. 5:486. 1918.

PUCCINIA FUSCELLA Arth. et J. R. Johnston Mem. Torr. Bot. Club 17: 157. 1918.

Puccinia gaillardiae (Diet. et Holw.) Barth.: See UREDO GAILLARDIAE Diet. et Holw.

PUCCINIA GEMELLA Diet. et Holw. ex Syd. Monogr. Ured. 1: 541. 1903.

PUCCINIA GENTIANAE (Strauss) Roehling Deutsch. Fl. ed. 2, 3 (2): 131. 1813. Uredo gentianae Strauss Ann. Wett. Ges. 2:102. 1810. The type here contains telia according to Hylander, Jørstad, and Nannfeldt (loc. cit. p. 51).

Puccinia gentianae Link in Willd. Sp. Pl. 6 (2): 73. 1825. Puccinia probabilis Arth. et Cumm. Ann. Mycol. 31: 42. 1933. The host is Gentiana and not Veronica.

PUCCINIA GENTILIS Arth. Bull. Torr. Bot. Club 46: 118. 1919.

\*\*PUCCINIA GEOPHILAE Rac. Parasit. Algen Pilze Javas II, p. 27. 1900.
On Geophila herbacea (Jacq.) Schum.: Dominican Republic.

PUCCINIA GIGANTEA Karst. Bidr. Finl. Nat. Folk 31: 42. 1879.

PUCCINIA GIGANTISPORA Bub. Sitz. Boehm. Ges. Wiss. 1901 (2): 9. 1901.

PUCCINIA GILIAE Hark. Bull. Calif. Acad. 1: 34. 1884.

PUCCINIA GILVA Arth. et Holw. in Arth. Amer. Jour. Bot. 5: 479. 1918.

PUCCINIA GLABELLA Holw. No. Amer. Ured. 1: 76, 1907.

Puccinia gladioli Cast.: See AECIDIUM VALERIANELLAE Biv.

PUCCINIA GLOBOSIPES Pk. Bull. Torr. Bot. Club 12:34. 1885.

Puccinia dondiae Arth. Bull. Torr. Bot. Club 42: 592. 1915.

The host of this species is now known to be <u>Lycium</u> and not Suaeda (or Dondia).

Puccinia grayiae (Arth.) Arth. Manual Rusts U. S. and Canada, p. 282. 1934. The host of this species is Lycium and not Grayia.

PUCCINIA GLOBULIFERA Arth. Bot. Gaz. 40: 200. 1905.

Puccinia glumarum (Schmidt) Erikss. et E. Henn.: See P. STRIIFORMIS West.

Puccinia gnaphalii (Speg.) P. Henn.: See P. GNAPHALIICOLA P. Henn.

PUCCINIA GNAPHALIICOLA P. Henn. Hedwigia 38 (Beibl.): 68. 1899.

Uredo gnaphalii Speg. Anal. Soc. Cien. Argent. 12:73. 1881. See NOTE 1, p. 110.

Puccinia gnaphalii P. Henn. Hedwigia 41 (Beibl.): 66. 1902. Based on the above Uredo.

PUCCINIA GOUANIAE Holw. Ann. Mycol. 3:21. 1905.

PUCCINIA GRAMINELLA Diet. et Holw. in Diet. Erythea 3:80. 1895.

PUCCINIA GRAMINIS Pers. Syn. Meth. Fung., p. 228. 1801.

Puccinia dactylidis Gäum. Ber. Schweiz. Bot. Gesell. 55: 79. 1945.
In addition to <u>Puccinia graminis</u> Pers. var. <u>phlei-pratensis</u> (Erikss. et E. Henn.)
Stak. et Piem. recognized by Arthur (Manual Rusts U. S. and Canada, p. 176. 1934)
many other forms have been set up as varieties, subspecies, etc. These are based in large part on host differences or on minor morphological details. We have not attempted to go into this complex situation in the present paper.

PUCCINIA GRANULISPORA Ell. et Gall. ex Ell. et Ev. Bull. Torr. Bot. Club 22: 61. 1895.

\*\*PUCCINIA GRATA Arth. et Cumm. Ann. Mycol. 31: 42. 1933. On Salvia concolor Lamb: Mexico.

Puccinia grayiae (Arth.) Arth.: See P. GLOBOSIPES Pk.

PUCCINIA GRINDELIAE Pk. Bot. Gaz. 4: 127. 1879.

Puccinia wentii Gäum. Ber. Schweiz. Bot. Ges. 57: 246. 1947.

PUCCINIA GRUMOSA Syd. et Holw. in Syd. Monogr. Ured. 1:641. 1903.

\*\*PUCCINIA GUARANITICA Speg. Anal. Soc. Cien. Argent. 26: 12. 1888.

Puccinia chichenensis Mains Carnegie Inst. Wash. Publ. 461: 100. 1935.

On Gouinia guatemalensis (Hack.) Swallen, G. ramosa Swallen: Honduras, Mexico. See and Hennen and Cummins (Mycologia 48:133-134. 1956) for a discussion of this species.

PUCCINIA GUARDIOLAE Diet, et Holw. in Holw. Bot. Gaz. 31: 334. 1901.

PUCCINIA GUILLEMINEAE Diet. et Holw, in Holw, Bot. Gaz. 24: 34, 1897.

PUCCINIA GULOSA Jacks. in Arth. Bull. Torr. Bot. Club 47: 470. 1920.

\*PUCCINIA GYMNANDRAE Tranz. Scripta Bot. Horti. Univ. Imper. Petrop. 3: 137. 1891.

On Lagotia glauca Gaertn.: Alaska.

- PUCCINIA GYMNOLOMIAE Arth. Bot. Gaz. 40: 200. 1905.

  Puccinia gymnolomiae Diet. et. Holw. in Garrett Fungi Utah.

  No. 15. 1904. (nomen nudum).
- Puccinia gymnotrichis P. Henn. Hedwigia 35: 242. 1896. Does not occur in North America. See P. arthurii Syd.
- \*\*PUCCINIA HACKELIAE Cumm. Bull. Torr. Bot. Club 67: 610. 1940. On Hackelia mexicana (C. et S.) I. M. Johnst.: Guatemala.
  - PUCCINIA HALENIAE Arth. et Holw. in Arth. Bull. Geol. Nat. Hist. Surv. Minn. 3: 30. 1887.
  - PUCCINIA HARKNESSII Vize Grevillea 7: 11. 1878.
  - PUCCINIA HELIANTHELLAE Arth. Bull. Torr. Bot. Club 31: 4. 1904.

    Trichobasis helianthellae Pk. Bot. Gaz. 7: 45. 1882. See NOTE 1, p. 110.
  - PUCCINIA HELIANTHI Schw. Schr. Nat. Ges. Leipzig 1: 73. 1822.
  - PUCCINIA HELICONIAE Arth. Bull. Torr. Bot. Club 45: 144. 1918.

    Uredo heliconiae Diet. Hedwigia 36: 35. 1897. See NOTE 1, p. 110.
  - PUCCINIA HELIOTROPII Kern et Kellerm, in Kern Jour, Myc. 13: 23, 1907.
- \*PUCCINIA HENRYAE Cumm. Bull. Torr. Bot. Club 68: 468. 1941. On Henrya imbricans Donn. Sm.: Guatemala.
  - PUCCINIA HETEROSPORA Berk, et Curt. Jour. Linn. Soc. Bot. 10: 356. 1868.
  - PUCCINIA HEUCHERAE (Schw.) Diet. Ber. Deutsch. Bot. Ges. 9:42. 1891. Uredo heucherae Schw. Schr. Nat. Ges. Leipzig 1:71. 1822. Telia present.
  - PUCCINIA HEUCHERAE var. AUSTROBERINGIANA Savile Canadian Jour. Bot. 32: 407. 1954.

    For hosts and distribution see Savile Canadian Jour. Bot. 32: 406. 1954.
  - PUCCINIA HEUCHERAE var. HEUCHERAE

Puccinia tiarellae Berk. et Curt. Grevillea 3: 53. 1874. Puccinia spreta Pk. Ann. Report. N. Y. State Mus. 29: 67. 1878. Puccinia congregata Ell. et Hark. Bull. Calif. Acad. 1: 26. 1884. For description, additional hosts and distribution see Savile (loc. cit.)

- PUCCINIA HEUCHERAE var. LITHOPHRAGMAE (Holw.) Savile Canadian Jour.
  Bot. 32: 409. 1954.
  Puccinia lithophragmae Holw. No. Amer. Ured. 1: 51. 1906.
- PUCCINIA HEUCHERAE var. SAXIFRAGAE (Schlecht.) Savile Canadian Jour. Bot. 32: 408. 1954.

Puccinia saxifragae Schlecht. Fl. Berol. 2:134. 1824. For additional hosts and distribution see Savile (loc. cit.).

- PUCCINIA HIASCENS Arth. Bull. Torr. Bot. Club 46: 471. 1920.
- PUCCINIA HIERACII (Roehling) Mart. Prodr. Fl. Mosq. Ed. 2, p. 227. 1817.

  Puccinia flosculosorum var. hieracii Roehling Deutsch. Fl. Ed. 2.

  III 3: 131. 1813.

  Uredo hieracii Schum. Enum. Pl. Saell. 2: 232. 1803. See NOTE 1, p. 110.

PUCCINIA HODGSONIANA Kern in Arth. Amer. Jour. Bot. 5: 526. 1918.

Puccinia holboellii (Hornem.) Rostr.: See P. THLASPEOS Schub.

PUCCINIA HOLWAYULA Jacks. Mycologia 24: 163. 1932.

Costa Rican specimens referred to P. oyedaeae Mayor (No. Amer. Flora 7: 431. 1921) belong here.

Puccinia hordei Fckl.: See P. RECONDITA Rob. ex Desm.

PUCCINIA HORDEI Otth Mitth. Nat. Ges. Bern. 1870; 114. 1871.

Puccinia anomala Rostr. in Thuem. Flora 61: 92. 1878. For a discussion of the nomenclature involved for this species see Plant Disease Reporter 30: 373. 1946.

Puccinia hordei-murini Buch.: See PUCCINIA RECONDITA Rob. ex Desm.

PUCCINIA HUBERI P. Henn. Hedwigia 39 (Beibl.): 76. 1900. For a discussion of the status of this species see Cummins (Mycologia 34: 692-693. 1942.)

PUCCINIA HYDROCOTYLES Cke. Grevillea 9: 14. 1880.

Caeoma hydrocotyles Link in Willd. Sp. Pl. 6 (2): 22. 1825.

See NOTE 1, p. 110.

PUCCINIA HYDROPHYLLI Pk. et G. W. Clint. in Pk. Ann. Report N. Y. State Mus. 30: 54. 1878.

PUCCINIA HYPTIDIS Tracy et Earle Bull. Miss. Agric. Exp. Sta. 34:86. 1895. Uredo hyptidis Curt. Amer. Jour. Sci. II. 6:353. 1848. See NOTE 1, p. 110.

\*PUCCINIA HYPTIDIS-MUTABILIS Mayor Mem. Soc. Neuch. Sci. Nat. 5: 496. 1913.

Puccinia amphiospora Cumm. Bull. Torr. Bot. Club 67: 67. 1940.

On Hyptis mutabilis (A. Rich) Briq.: Florida.

PUCCINIA HYSSOPI Schw. Trans. Amer. Phil. Soc. II 4: 296. 1832.

\*\*PUCCINIA ICHNANTHI Mains Bull. Torr. Bot. Club 66: 619. 1939.
On Ichnanthus candicans (Nees) Doell.: British Honduras.

PUCCINIA IDONEA Jacks. et Holw. in Jacks. Bot. Gaz. 65: 305. 1918.

Puccinia ignava (Arth.) Arth.: See UREDO IGNAVA Arth.

PUCCINIA IMPEDITA Mains et Holw. in Arth. Mycologia 10: 135. 1918.

PUCCINIA IMPERSPICUA Syd. Monogr. Ured. 1: 361. 1902.

PUCCINIA IMPOSITA Arth. Bull. Torr. Bot. Club 46: 112. 1919.

\*\*PUCCINIA IMPRESSA Syd. Ann. Mycol. 24: 289. 1926. On Solanum salviifolium Lam.: Costa Rica.

PUCCINIA INAEQUATA Jacks. et Holw. in Jacks. Bot. Gaz. 65: 309. 1918.

PUCCINIA INANIPES Diet. et Holw. in Holw. Bot. Gaz. 31: 332. 1901.

PUCCINIA INAUDITA Jacks. et Holw. in Arth. Amer. Jour. Bot. 5: 535. 1918.

PUCCINIA INCLITA Arth. Bull. Torr. Bot. Club 46: 115. 1919.

Puccinia incomposita (Kern) Barth.: See UREDO INCOMPOSITA Kern

PUCCINIA INCONDITA Arth. Bull. Torr. Bot. Club 45: 148. 1918.

PUCCINIA INERMIS Jacks. et Holw. in Arth. Mycologia 10: 142. 1918.

PUCCINIA INFLATA Arth. Bull. Torr. Bot. Club 33: 516. 1906.

PUCCINIA INFREQUENS Holw. Jour. Myc. 11: 158. 1905.

PUCCINIA INFUSCANS Arth. et Holw. in Arth. Amer. Jour. Bot. 5: 463, 1918.

PUCCINIA INSIGNIS Holw. Ann. Mycol. 2:392. 1904.

PUCCINIA INSITITIA Arth. Mycologia 7: 248. 1915.

PUCCINIA INSPERATA Jacks. Brooklyn Bot. Garden Mem. 1: 253. 1918.

PUCCINIA INSULANA (Arth.) Jacks. Bot. Gaz. 65: 296. 1918.

PUCCINIA INTERJECTA Jacks. Mycologia 24: 148. 1932.

Guatemalan specimens assigned to P. ancizari Mayor in No. Amer.

Flora 7: 476. 1921, belong here.

PUCCINIA INTERMIXTA Pk. Bot. Gaz. 4: 218. 1879.

PUCCINIA INTERVENIENS Bethel in Blasdale Univ. Calif. Publ. Bot. 7: 119. 1919.

PUCCINIA INTUMESCENS (Syd.) Holw. No. Amer. Ured. 1:60. 1907.

PUCCINIA INVAGINATA Arth. et J. R. Johnston Mem. Torr. Bot. Club 17: 146. 1918.

PUCCINIA INVELATA Jacks, ex Arth. Bull. Torr. Bot. Club 46: 119, 1919.

PUCCINIA INVESTITA Schw. Trans. Amer. Phil. Soc. II, 4:296. 1832.

PUCCINIA IOSTEPHANES Diet. et Holw. in Holw. Bot. Gaz. 31: 334. 1901.

PUCCINIA IRIDIS Rab. Deutsch. Krypt. Fl. 1:23. 1844.

Uredo iridis DC, ex Poir, in Lam. Encyc. 8: 224, 1808. See NOTE 1, p. 110.

Puccinia clavuligerae iridis Wallr. Fl. Crypt. Germ. 2:223. 1833. Based on the Uredo name.

Hylander, Jørstad, and Nannfeldt (loc. cit. p. 56) report the aecial stage on Urtica in Norway.

PUCCINIA IRREGULARIS Diet. Hedwigia 36: 33. 1897.

PUCCINIA IRREQUISITA Jacks. ex Arth. Bull. Torr. Bot. Club 48: 32. 1921.

PUCCINIA JALAPENSIS (Holw.) Barth. ex Cumm. Mycologia 48: 604. 1956.

Aecidium jalapense Holw. Ann. Mycol. 2:392. 1904. Telia present.

Dicaeoma jalapense Arth. No. Amer. Fl. 7: 402. 1920. Telia not described.

Puccinia jalapensis Barth. No. Amer. Ured. No. 2549, 1922.

PUCCINIA JALISCANA Arth. Bot. Gaz. 40: 202, 1905.

PUCCINIA JALISCENSIS Holw. Ann. Mycol. 2: 393. 1904.

Considered a synonym of P. cupheae Holw. in No. Amer. Flora 7: 548,

1922, but appears distinct.

PUCCINIA JOHNSTONII Arth. in Arth. et J. R. Johnston Mem. Torr. Bot Club 17: 149. 1918.

PUCCINIA JONESII Pk. Bot. Gaz. 6: 226. 1881.

Arthur (Manual Rusts U. S. and Canada, p. 317. 1934.) sets up three varieties, P. jonesii typica, P. jonesii cymopteri (Diet. et Holw.), and P. jonesii lindrothii Syd., based on host relations and minor morphological details.

PUCCINIA JUSSIAEAE Speg. Anal. Soc. Cien. Argent. 12:68. 1881.

Puccinia kaernbachii (P. Henn.) Arth.: See P. POSADENSIS Sacc. et Trott.

PUCCINIA KANSENSIS Ell. et Barth. Erythea 4: 1. 1896.

Puccinia karelica Tranz.: See PUCCINIA CARICINA DC. var. LIMOSAE (P. Magn.) Jørstad

PUCCINIA KOELERIAE Arth. Mycologia 1: 247. 1909.

PUCCINIA KUHNIAE Schw. Trans. Amer. Phil. Soc. II 4: 296. 1832.

PUCCINIA LANTANAE Farl, Proc. Amer. Acad. Sci. 18:83. 1883.

PUCCINIA LAPATHICOLA Hylander, Jørstad, et Nannf. Opera Bot. 1 (1): 66. 1953.

Puccinia punctiformis Diet. et Holw. in Diet. Erythea 2: 128. 1894.

Non P. punctiformis (Strauss) Roehling 1813.

PUCCINIA LAPSANAE Fckl. Jahr. Nass. Ver. Nat. 15: 13. 1860. Trichobasis lapsanae Cke. Micro. Fungi, ed. 4, p. 224. 1865. See NOTE 1, p. 110.

PUCCINIA LATERIPES Berk. et Rav. in Berk. Grevillea 3: 52. 1874.

Uredo ruelliae Berk. et Br. Jour. Linn. Soc. 14: 92. 1873.

See NOTE 1, p. 110.

Puccinia ruelliae Lagh. Troms Mus. Aarsh. 17: 71. 1895.

PUCCINIA LATERITIA Berk, et Curt, Jour, Acad, Nat. Sci. Phil, II 2: 281, 1853.

PUCCINIA LAURENTIANA Trel. in Harriman Alas. Exped. Crypt., p. 38. 1904.

\*\*PUCCINIA LAURIFOLIAE Davidson Mycologia 24: 224. 1932. On Heteropteris laurifolia (L.) Juss.: Guatemala.

Puccinia leonotidis (P. Henn.) Arth.: See P. LEONOTIDICOLA P. Henn.

\*PUCCINIA LEONOTIDICOLA P. Henn. in H. Baum Kun-Samb. Exped., p. 2. 1903. Uredo leonotidis P. Henn. in Engler Pfl. Ost.-Afr. Teil C: 52. 1895. See NOTE 1, p. 110.

Puccinia leonotidis Arth. Mycologia 7: 245. 1915. Based on the above Uredo name.

Puccinia dominicana Gonz.-Frag. et Cif. Bol. R. Soc. Espan. Hist. Nat. 26: 248. 1926.

On Leonotis nepetaefolia (L.) R. Br.: Florida.

PUCCINIA LEPTOCHLOAE Arth. et Fromme Torreya 15: 263. 1915.

PUCCINIA LEPTOSPORA Ricker Jour. Myc. 11: 114. 1905.

\*\*PUCCINIA LEUCADIS Syd. Monogr. Ured. 1: 281. 1902.
On Leucas martinicensis (Jacq.) R. Br.: Dominican Republic.

- PUCCINIA LEVEILLEI Mont. in C. Gay Hist. Fis. Polit. Chile 8:41. 1852.
- PUCCINIA LEVIS (Sacc. et Bizz.) Magn. Ber. Deutsch. Bot. Ges. 9:190. 1891. Uromyces tricholaenae Gonz. Frag. et Cif. Bol. R. Soc. Esp. Hist. Nat. 25:357. 1925.
- PUCCINIA LIATRIDIS (Arth. et Fromme) Bethel ex Arth. Manual Rusts U. S. and Canada, p. 146. 1934.

Aecidium compositarum liatridis Webber Ann. Report Nebr. Board Agric. 1889: 210. 1890. See NOTE 1, p. 110.

Puccinia liatridis Bethel ex Arth. Mycologia 9: 301. 1917. (Nomen nudum.)

Dicaeoma liatridis Arth. et Fromme No. Amer. Flora 7: 326. 1920. The first valid description of telia.

PUCCINIA LIBERTA Kern Mycologia 11: 412. 1919.

PUCCINIA LIGUSTICI Ell. et Ev. Bull. Torr. Bot. Club 22: 363. 1895.

PUCCINIA LIMOSAE Magn. Tagebl. Nat. Vers. München 50: 199. 1877.

Hylander, Jørstad, and Nannfeldt (loc. cit. p. 43) treat this
as P. caricina var. limosae Jørstad Kgl. n. Vidensk. Selsk. Skr. 38:
17. 1936.

PUCCINIA LINKII Klotzsch Linnaea 8: 490. 1833.

PUCCINIA LITHOSPERMI Ell. et Kell. Jour. Myc. 1:2. 1885.

PUCCINIA LOBATA Berk. et Curt. in Berk. Grevillea 3: 54. 1874.

PUCCINIA LOBELIAE Gerard ex Pk. Bull. Buffalo Soc. Nat. Sci. 1:66. 1873.

Puccinia microsperma Berk. et Curt. in Curt. Cat. Plants No. Car.,
p. 121. 1867. Nomennudum.

PUCCINIA LONGIANA Syd. Hedwigia 40 (Beibl.): 126. 1901. Segregated from  $\underline{P}$ . lateripes Berk. et Rav. as distinct. On Ruellia tuberosa  $\underline{L}$ .:  $\underline{Texas}$ .

PUCCINIA LONGIPEDICELLATA Barth. Handbook No. Amer. Ured. Ed. 2, p. 126. 1933.

Puccinia euphorbiae longipes Syd. Ured. No. 1521. 1901. Bullaria longipes Arth. et Mains No. Amer. Flora 7: 486. 1922.

PUCCINIA LUDOVICIANAE Fahrendorf Ann. Mycol. 39: 181. 1941. On Artemisia ludoviciana Nutt. Segregated from  $\underline{P}$ .  $\underline{absinthii}$  (Hedw. f.) DC, for which see  $\underline{\overline{P}}$ .  $\underline{tanaceti}$  DC.

Puccinia lupinicola Gäum.: See P. THELYPODII Cumm.

PUCCINIA LUXURIOSA Syd. Monogr. Ured. 1:812. 1904.

Puccinia lyngei Jorstad: See P. FISCHERI Cruch. et Mayor

PUCCINIA MACRA Arth. et Holw. in Arth. Amer. Jour. Bot. 5: 465. 1918.

PUCCINIA MACROPODA Speg. Anal. Soc. Cien. Argent. 10:8. 1880.

Uredo striolata Speg. Anal. Cien. Argent. 9:173. 1880. See NOTE 1, p. 110.

Puccinia striolata Arth. Mem. Torr. Bot. Club 17:142. 1918.

Uredo saphena Arth. et Cumm. Ann. Mycol. 31:44. 1933. Reported

on Physalis pubescens L. from Cuba, but the host is probably Iresine.

PUCCINIA MACROSPORA Arth. Mycologia 1: 244. 1909. Non Puccinia macrospora (Lk.) Spreng. Syst. 4: 569. 1827

The fact that Arthur's use of this epithet was antedated was not discovered in time for a new name to be proposed by Cummins (Mycologia 48: 601-608. 1956).

Puccinia maculosa Schw.: See P. COLUMBIENSIS Ell. et Ev.

PUCCINIA MAGNUSIANA Koern. Hedwigia 15: 179. 1876.

PUCCINIA MALVACEARUM Bert. ex Mont. in C. Gay Hist. Fis. Polit. Chile 8:43. 1852.

PUCCINIA MARIAE-WILSONIAE G. W. Clint. in Pk. Bull. Buffalo Soc. Nat. Sci. 1: 66. 1873.

PUCCINIA MARIAE-WILSONIAE G. W. Clint var. MARIAE-WILSONIAE
This trinomial set up by Savile and Parmelee (Mycologia 48: 573. 1956)
under the provisions of Art. 35 of the Code.

PUCCINIA MARIAE-WILSONIAE G. W. Clint var. MONTIAE Savile Mycologia 48: 574. 1956.

PUCCINIA MARIANAE Syd. Hedwigia 40 (Beibl.): 127. 1901.

PUCCINIA MARSDENIAE Diet. et Holw. in Holw. Bot. Gaz. 31: 330. 1901.

PUCCINIA MARYLANDICA Lindr. Medd. Stockh. Hogsk. Bot. Inst. 4 (9): 2. 1901.

PUCCINAI MASSALIS Arth. Bull. Torr. Bot. Club 46: 119. 1919.

PUCCINIA MCCLATCHIEANA Diet. et Holw. in Diet. Erythea 2: 127. 1894.

PUCCINIA MEDELLINENSIS Mayor Mem. Soc. Neuch. Sci. Nat. 5: 497. 1913.

PUCCINIA MEGALOSPORA (Orton) Arth. et J. R. Johnston Mem. Torr. Bot. Club 17: 152. 1918.

PUCCINIA MELAMPODII Diet. et Holw. in Holw. Bot. Gaz. 24: 32. 1897.

PUCCINIA MELANCONIOIDES Ell. et Hark. Bull. Calif. Acad. 1:27. 1884.

Puccinia melanocephala Syd. : See PUCCINIA PHYLLOSTACHYDIS Kusano

PUCCINIA MELANTHERAE P. Henn. Hedwigia 36: 214. 1897.

PUCCINIA MELLIFERA Diet. et Holw. in Diet. Erythea 1: 25. 1893.

PUCCINIA MENTHAE Pers. Syn. Meth. Fung. p. 227. 1801.

PUCCINIA MERTENSIAE Pk. Bot. Gaz. 6: 227. 1881.

PUCCINIA MESNIERIANA Thuem. Myc. Univ. No. 834. 1877.

PUCCINIA MESOMAJALIS Berk. et Curt. ex Pk. Ann. Report N. Y. State Mus. 25: 111. 1873.

PUCCINIA MICRANTHA Griff. Bull. Torr. Bot. Club 29: 299. 1902.

PUCCINIA MICROICA Ell. Jour. Myc. 7: 274. 1893.

PUCCINIA MICROSORA Koern. ex Fckl. Fungi Rhen. No. 2637. 1874.

PUCCINIA MICROSPORA Diet. in Engler's Bot. Jahrb. 27: 101. 1905.

On Imperata hookeri Rupr.: Ariz. In the manual referred to P. kaernbachii
(P. Henn.) Arth.

PUCCINIA MILLEFOLII Fckl. Jahrb. Nass. Ver. Nat. 23-24: 55. 1870. See also P. cnici-oleracei Pers. ex Desm.

PUCCINIA MINUSSENSIS Thuem. Bull. Soc. Nat. Mosc. 53: 214. 1878.

PUCCINIA MINUTA Diet. ex Atk. Bull. Cornell Univ. 3: 19. 1897.

PUCCINIA MINUTISSIMA Arth. Bull. Torr. Bot. Club 34: 587. 1907.

PUCCINIA MIRIFICA Diet. et Holw. in Diet. Erythea 3: 79. 1895.

Uromyces triannulata Berk. et Curt. Grevillea 3: 56. 1874. Based on uredia only.

Puccinia triannulata Jacks. Mycologia 14: 111. 1922.

PUCCINIA MITRATA Syd. Monogr. Ured. 1: 294. 1902.

PUCCINIA MODICA Holw. Jour. Myc. 10: 164. 1904.

Uredo arenariicola P. Henn. Hedwigia 35: 253. 1896. See NOTE 1, p. 110.

Puccinia arenariicola Jacks. Mycologia 19: 63. 1927. Based on the

Uredo name.

\*\*PUCCINIA MOGIPHANIS Arth. Bot. Gaz. 65: 469. 1918. On Achyranthes laguroides Standl.: Nicaragua.

PUCCINIA MONOICA Arth. Mycologia 4: 61. 1912.

PUCCINIA MONTANENSIS Ell. Jour. Myc. 7: 274. 1893.

PUCCINIA MORENIANA Dudl. et C. H. Thompson Jour. Myc. 10:53. 1904.

PUCCINIA MUSENII Ell. et Ev. Bull. Torr. Bot. Club 27: 61. 1900.

PUCCINIA MUTABILIS Ell. et Gall. Jour. Myc. 5: 67. 1889.

PUCCINIA NANOMITRA Syd. Monogr. Ured. 1: 182. 1902.

PUCCINIA NEOROTUNDATA Cumm. Mycologia 48: 606. 1956.

Puccinia rugosa Speg. Anal. Soc. Cien. Argent. 17: 92. 1884. (Non Billings, 1871.)

Puccinia rotundata Diet. Hedwigia 36: 32. 1897. (Non Bonorden, 1860).

Puccinia nephrophyllidii Mains: See P. AREOLATA Diet. et Holw.

PUCCINIA NESODES Arth. et Holw. in Arth. Mycologia 10: 138. 1918.

Puccinia nivea Holw.: See POLIOMA NIVEA (Holw.) Arth.

Puccinia niveoides Cumm.; See P. DELICATULA var. NIVEOIDES (Cumm.)

J. W. Baxter

PUCCINIA NOCCAE Arth, Bot. Gaz. 40: 202. 1905.

PUCCINIA NOCTICOLOR Holw. Ann. Myc. 2:391. 1904.

PUCCINIA NODOSA Ell. et Hark. Bull. Calif. Acad. 1:27. 1884.

PUCCINIA NOTHA Jacks. et Holw. in Jacks. Bot. Gaz. 65: 305. 1918.

PUCCINIA NOTOPTERAE Arth. Bull. Torr. Bot. Club 45: 149. 1918.

PUCCINIA NOVAE-ZEMBLIAE Jørstad Rep. Sci. Res. Norw. Exped. Nov. Zemlya 18: 6. 1923.

Puccinia campanulae novae-zembliae Arth. Manual Rusts U. S. and Canada, p. 262. 1934.

PUCCINIA NUDA Ell. et Ev. Jour. Myc. 3:57. 1887.

PUCCINIA OAHUENSIS Ell. et Ev. Bull. Torr. Bot. Club 22: 435. 1895.

On Digitaria sp.: Puerto Rico. Formerly reported under P. paspalicola (P. Henn.) Arth.

PUCCINIA OAXACANA Diet. et Holw. in Holw. Bot. Gaz. 31: 331. 1901.

PUCCINIA OBESISPORA Arth. Bull. Torr. Bot. Club 45: 147. 1918.

\*\*PUCCINIA OBLATA Mains Contrib. Univ. Mich. Herb. 1: 12. 1939.

On Notoptera scabridula Blake, Otopappus curviflorus (R. Br.) Hemsl.: British Honduras, Guatemala.

PUCCINIA OBLIQUA Berk. et Curt. in Berk. Jour. Linn. Soc. Bot. 10: 356. 1869.

PUCCINIA OBSCURA Schroet. ex Pass. N. Giorn. Bot. Ital. 9:256. 1877.

PUCCINIA OBSCURATA Arth. et Holw. in Arth. Amer. Jour. Bot. 5: 477. 1918.

PUCCINIA OBTECTA Pk. Bull. Buffalo Soc. Nat. Sci. 1: 66. 1873.

\*\*PUCCINIA OBTECTELLA Cumm. Bull. Torr. Bot. Club 67: 609. 1940. On Scirpus americanus Pers.: Guatemala.

Puccinia obtegens Tul.: See P. PUNCTIFORMIS (Strauss) Roehling

PUCCINIA OENOTHERAE Vize Grevillea 5: 109. 1877.

Arthur (Manual Rusts U. S. and Canada, p. 248. 1934.) sets up the variety heteranthae based on host and minor morphological differences.

PUCCINIA OFFUSCATA Arth. Bull. Torr. Bot. Club 47: 469. 1920.

Uredo zorniae Diet. Hedwigia 38: 257. 1899. See NOTE 1, p. 110.

Puccinia zorniae Barth. No. Amer. Ured. Ed. 1, p. 176. 1928. (Non McAlpine 1906).

PUCCINIA ONOPORDI Syd. Monogr. Ured. 1: 128, 1902.

PUCCINIA OPULENTA Speg. Anal. Soc. Cien. Argent. 9: 170. 1880.

PUCCINIA ORBICULA Pk. et G. W. Clint. in Pk. Ann. Report N. Y. State Mus. 30: 53. 1879.

PUCCINIA ORDINATA Jacks. et Holw. in Arth. Amer. Jour. Bot. 5:530. 1918.

Puccinia ormosiae Arth.: See DICHEIRINIA ORMOSIAE (Arth.) Cumm:

PUCCINIA ORNATA Arth. et Holw. in Arth. Bull. Geol. Nat. Hist. Surv. Minn. 3:30. 1887.

PUCCINIA ORNATULA Holw. No. Amer. Ured. 1: 67. 1907.

\*PUCCINIA ORNITHOGALI-THYRSOIDES Diet. Hedwigia 44: 178. 1905.
On Ornithogalum sp.: Manitoba. On plants grown from bulbs imported from

Africa but the rust not persisting.

PUCCINIA ORTONII Jacks. Brooklyn Bot. Gard. Mem. 1: 259. 1918.

PUCCINIA OTOPAPPI Syd. Monogr. Ured. 1: 129. 1902.

PUCCINIA OUDEMANSII Tranz. in Syd. Monogr. Ured. 1:894. 1904.

PUCCINIA OXALIDIS Diet. et Ell. in Diet. Hedwigia 34: 291. 1895. Uredo oxalidis Lév. Ann. Sci. Nat. II, 16: 240. 1841. See NOTE 1, p. 110.

PUCCINIA OXYRIAE Fckl. Jahrb. Nass. Ver. Nat. 29-30; 14, 1876.

Puccinia oyedaeae Mayor: See P. HOLWAYULA Jacks.

PUCCINIA PACIFICA Blasd. ex Arth. Bull. Torr. Bot. Club 48: 31. 1921.

PUCCINIA PAGANA Arth. Bull. Torr. Bot. Club 38: 372. 1911.

\*\*PUCCINIA PALICOUREAE Mains Carnegie Inst. Wash. Publ. 461: 102. 1935. On Palicourea triphylla DC.: British Honduras.

Puccinia pallescens Arth.: See ANGIOPSORA PALLESCENS (Arth.) Mains

\*PUCCINIA PALLIDISSIMA Speg. Anal. Soc. Cien. Argent. 12:69. 1881. On Stachys coccinea Jacq.: Texas

PUCCINIA PALLOR Arth. et Holw. in Arth. Mycologia 10: 129. 1918.

PUCCINIA PALMERI Diet. et Holw. in Diet. Erythea 7:98. 1899.

Puccinia paludosa Plowr.: See PUCCINIA CARICINA DC.

PUCCINIA PANICI Diet. Erythea 3: 80. 1895.

PUCCINIA PARADOXICA Ricker Jour. Myc. 11: 114. 1905.

PUCCINIA PARCA Arth. Bull. Torr. Bot. Club 46: 117, 1919...

PUCCINIA PARILIS (Arth.) Arth. Amer. Jour. Bot. 5: 485. 1918.

PUCCINIA PARKERAE Diet. et Holw. in Diet. Erythea 3: 78. 1895.

PUCCINIA PARNASSIAE Arth. Bull. Torr. Bot. Club 31: 3. 1904.

Puccinia parnassiaecola Barth. Handbook No. Amer. Ured., Ed. 1,
p. 147. 1928.

\*PUCCINIA PAROSELAE Cumm. Bull. Torr. Bot. Club 68: 44. 1941. On Parosela mollis (Benth.) Heller: California.

PUCCINIA PARTHENICES Jacks. Mycologia 14: 108. 1922.

PUCCINIA PARTHENII Arth. Bull. Torr. Bot. Club 37: 570. 1910.
[Uredo parthenii Speg. Anal. Mus. Nac. Buenos Aires 6: 239. 1899.
Excluded, see the following species.]

On Parthenium argentatum A. Gray: Mexico. For other hosts reported for this species in No. Amer. Flora 7: 600, 1922, see the following.

PUCCINIA PARTHENIICOLA Jacks. Mycologia 24: 166. 1932.

Uredo parthenii Speg. Anal. Mus. Nac. Buenos Aires 6: 239, 1919.

On Parthenium hysterophorum L. and P. incanum H.B.K.: Bermuda, Texas, Mexico. Segregated (Jackson, loc. cit.) from the preceding.

Puccinia paspalicola (P. Henn.) Arth.: See P. SUBSTRIATA Ell. et Barth.

PUCCINIA PATTERSONIANA Arth. Bull. Torr. Bot. Club 33: 29. 1906.

\*\*PUCCINIA PAULENSIS Rangel Arch. Jard. Bot. Rio de Janeiro 2:70. 1918.
On Capsicum annuum L.: Guatemala.

PUCCINIA PAUPERCULA Arth. Bot. Gaz. 40: 206. 1905.

PUCCINIA PAZSCHKEI Diet. Hedwigia 30: 103. 1891.

PUCCINIA PAZSCHKEI Diet. var. HETERISIAE (Jacks.) Savile Canadian Jour. Bot. 32: 410. 1954.

On Saxifraga mertensiana Bong.: Washington, Montana, British Columbia.

PUCCINIA PAZSCHKEI Diet. var. JUELIANA (Diet.) Savile Canadian Jour. Bot. 32:411. 1954.

Puccinia jueliana Diet. Hedwigia 36: 298. 1897.

On Saxifraga aizoides L.: Greenland; S. ferruginea Graham: British Columbia.

\*PUCCINIA PAZSCHKEI Diet. var. OPPOSITIFOLIAE Savile Canadian Jour. Bot. 32: 413. 1954.

On Saxifraga oppositifolia L.: Quebec.

PUCCINIA PAZSCHKEI Diet. var. TRICUSPIDATAE Savile Canadian Jour. Bot. 32:410. 1954.

Puccinia turrita Arth. et Jacks. in Arth. Bull. Torr. Bot. Club 29: 230. 1902.

On <u>Saxifraga bronchialis</u> L.: British Columbia; <u>S. tricuspidata</u> Rottb.: Alaska, Yukon.

PUCCINIA PENNISETI Zimm. Ber. Land. u. Forstwirts. Deutsch. Ostafrica 1:16. 1904.

On Pennisetum glaucum (L.) R. Br.: Georgia. Reported by Luttrell (Plant Disease Reporter 38: 511. 1954), but on the basis of the uredia Cummins considers it to be P. chaetochloae Arth.

PUCCINIA PENTSTEMONIS Pk. Bull. Torr. Bot. Club 12: 35. 1885.

Puccinia peridermiospora (Ell. et Tracy) Arth.: See P. SPARGANIOIDES Ell. et Barth.

Puccinia permagna Arth. et Holw.: See PROSPODIUM PERMAGNUM (Arth.  $\varepsilon$  Holw.) Cumm.

PUCCINIA PHACELIAE Syd. et Holw. in Syd. Monogr. Ured. 1: 314. 1902.

Puccinia phakopsoroides Arth. et Mains: See ANGIOPSORA PHAKOPSOROIDES (Arth. et Mains) Mains

PUCCINIA PHRAGMITIS (Schum.) Koern. Hedwigia 15: 179. 1876.

Uredo phragmitis Schum. Enum. Pl. Saell. 2: 231. 1803. Telia present in the type specimen.

PUCCINIA PHYLLOSTACHYDIS Kusano Bull. Agric. College Tokyo 8:38. 1908. American records (Manual Rusts U. S. and Canada, p. 188. 1934) of the

occurrence of Puccinia melanocephala Syd. belong to this species.

PUCCINIA PHYSALIDIS Pk. Bot. Gaz. 4: 218. 1879.

PUCCINIA PHYSOSTEGIAE Pk. et G. W. Clint. in Pk. Ann. Report N. Y. State Mus. 29:50. 1878.

PUCCINIA PIMPINELLAE (Strauss) Roehling Deutsch. Fl. ed. 2 III 3: 131. 1813.

Uredo pimpinellae Strauss Ann. Wett. Ges. 2: 102. 1810. Telia present
in the type specimen.

Puccinia pimpinellae Mart. Fl. Mosq. ed. 2. p. 226. 1817.

PUCCINIA PINAROPAPPI Syd. Hedwigia 40 (Beibl.): 127. 1901.

PUCCINIA PIPERI Ricker Jour. Myc. 11: 114. 1905.

PUCCINIA PISTORICA Arth. Bull. Torr. Bot. Club 38: 372. 1911.

PUCCINIA PITCAIRNIAE Lagh. in Diet. et Lagh. Bull. Soc. Myc. France 11: 214. 1895.

PUCCINIA PITTIERIANA P. Henn. Hedwigia 43: 147. 1904.

Puccinia plucheae (Syd.) Arth. : See P. BIOCELLATA Vest.

PUCCINIA PLUMBARIA Pk. Bot. Gaz. 6: 228. 1881.

PUCCINIA POAE-NEMORALIS Otth Mitth. Naturf. Ges. Bern. 1870: 113. 1871.
Puccinia poae-sudeticae Jorstad Nyt. Mag. f Natury. 70: 325. 1932.

Puccinia poae-sudeticae (West.) Jørstad: See P. POAE-NEMORALIS Otth

Puccinia poae-sudeticae J $\phi$ rstad var. airae (Lagh.) Arth.: See P. DESCHAMPSIAE Arth.

PUCCINIA POARUM Niels. Bot. Tidsskr. III 2: 34. 1877.

PUCCINIA PODOPHYLLI Schw. Schr. Nat. Ges. Leipzig 1: 72. 1822.

\*\*PUCCINIA POIKILOSPORA Cumm. Bull. Torr. Bot. Club 67: 69. 1940.
On Smilax jalapensis Schl., S. spinosa Mill.: Guatemala.

PUCCINIA POLEMONII Diet. et Holw. in Diet. Bot. Gaz. 18: 255. 1893.

PUCCINIA POLYGONI-ALPINI Cruch. et Mayor in Cruchet Herb. Boiss. II 8: 245. 1908.

PUCCINIA POLYGONI-AMPHIBII Pers. Syn. Meth. Fung. p. 227. 1801.

Arthur (Manual Rusts U. S. and Canada, p. 232-233. 1934)

recognizes three varieties based on host differences and minor morphological details:

P. polygoni-amphibii Pers. var. persicariae (Strauss) Arth.; P. polygoni-amphibii

Pers. var. convolvuli (Alb. et Schw.) Arth.; and P. polygoni-amphibii Pers. var. tovariae Arth.

PUCCINIA POLYSORA Underw. Bull. Torr. Bot. Club 24: 86. 1897.

PUCCINIA POROMERA Holw. No. Amer. Ured. 1: 90. 1913.

PUCCINIA POROPHYLLI P. Henn. Hedwigia 39 (Beibl.): 153. 1900.

PUCCINIA PORPHYROGENITA Curt. ex Thuem. Myc. Univ. No. 545. 1876.

Puccinia porri (Sow.) Wint.: See P. ALLII Rud.

PUCCINIA POSADENSIS Sacc. et Trott. in Sacc. Syll. Fung. 21: 691. 1912.

Uredo kaernbachii P. Henn. Bot. Jahrb. 18 (Beibl. 44): 23. 1894.

See NOTE 1, p. 110.

Puccinia kaernbachii Arth. Bull. Torr. Bot. Club 46: 110. 1919.

Puccinia kaernbachii Arth. Bull. Torr. Bot. Club 46: 110. 1919 See also Puccinia microspora Diet.

PUCCINIA PRAEALTA Jacks. et Holw. in Jacks. Bot. Gaz. 65: 306. 1918.

PUCCINIA PRAEGRACILIS Arth. Bull. Torr. Bot. Club 34: 585. 1907.

## PUCCINIA PRAEGRACILIS PRAEGRACILIS.

Aecidium graebnerianum P. Henn. Hedwigia 37: 273. 1898.

On Habenaria gracilis S. Wats., Agrostis churberiana Hitch.: British Columbia. The trinomial was set up by Savile Mycologia 43: 457. 1951.

PUCCINIA PRAEGRACILIS CONNERSII (Savile) Savile Mycologia 43: 458. 1951. Puccinia connersii Savile Mycologia 42: 665. 1950.

On <u>Habenaria dilatata</u> A. Gray, <u>Deschampsia atropurpurea</u> (Wahl.) Scheel.: British <u>Columbia</u>.

PUCCINIA PRAEMORSA Diet. et Holw. in Holw. Bot. Gaz. 31: 332. 1901.

PUCCINIA PRIONOSCIADII Lindr. Medd. Stockh. Hogsk. Bot. Inst. 4 (9): 5. 1901.

PUCCINIA PROBA Jacks. et Holw. in Arth. Mycologia 10: 143. 1918.

Puccinia probabilis Arth. et Cumm.: See P. GENTIANAE (Strauss) Roehling

Puccinia procera Diet. et Holw.: See PUCCINIA RECONDITA Rob. ex Desm.

PUCCINIA PROSERPINACAE Farl. Proc. Amer. Acad. 18:80. 1883.

Aecidium proserpinacae Berk. et Curt. in Berk. Grevillea 3:60. 1874.

See NOTE 1, p. 110.

Puccinia prosopidis Bieberdorf, Mefferd et Blackmon: See RAVENELIA HOLWAYI Diet.

Puccinia prospera Arth.: See P. FARINACEA Long

Puccinia proximella Arth.: See P. ARTHURELLA Trott.

PUCCINIA PSEUDOCYMOPTERI Holw. No. Amer. Ured. 1: 91. 1913.

PUCCINIA PSIDII Wint. Hedwigia 23: 171. 1884.

\*PUCCINIA PTARMICAE Karst. Bidr. Känned. Finl. Nat. Folk 31: 41. 1879.

On Achillea ptarmica L.: Quebec. Hylander, Jørstad, and Nannfeldt (loc. cit. p. 44) consider this a synonym of Puccinia cnici-oleracei Pers. ex Desm.

PUCCINIA PULSATILLAE Kalchb. Math. Term. Kozlem. 3: 307. 1865.

PUCCINIA PULVERULENTA Grev. Fl. Edinb., p. 432. 1824. Uredo vagans var. epilobii-tetragoni DC. Fl. Fr. 2:228. 1805. See NOTE 1, p. 110.

PUCCINIA PUNCTATA Lk. Mag. Ges. Nat. Freunde Berlin 7: 30. 1815.

PUCCINIA PUNCTATA Lk. var. TROGLODYTES (Lindr.) Arth. Manual Rusts U. S. and Canada, p. 260. 1934.

PUCCINIA PUNCTIFORMIS (Strauss) Roehling Deutsch. Fl. Ed. 2. III, 3: 132. 1813.

Uredo punctiformis Strauss Ann. Wett. Ges. 2: 103. 1810. The type of this species contains telia.

Puccinia obtegens Tul. Ann. Sci. Nat. IV 2:87. 1854. Telia not described.

Puccinia punctiformis Diet. et Holw.: See P. LAPATHICOLA Hylander, Jørstad et Nannf.

PUCCINIA PUNCTOIDEA Syd. Monogr. Ured. 1: 182. 1902.

\*PUCCINIA PURITANICA Cumm. Bull. Torr. Bot. Club 68:45. 1941. On Carex pennsylvanica Lam.: Massachusetts.

PUCCINIA PURPUREA Cke. Grevillea 5: 15. 1876.

PUCCINIA PYGMAEA Eriks. Fungi Paras. Scand. No. 449. 1895. See also  $\underline{P}$ . ammophilina Mains

PUCCINIA PYROLAE Cke. Proc. Portl. Soc. Nat. Hist, 1: 183. 1862.

Puccinia ranunculi Blytt: See P. BLYTTIANA Lagh.

PUCCINIA RATA Jacks. et Holw. in Jacks. Bot. Gaz. 65: 303. 1918.

PUCCINIA RAUNKAERII Ferd, et Winge Bot. Tidsskr. 29:8, 1908.

PUCCINIA RECEDENS Syd. Monogr. Ured. 1: 146. 1902.

PUCCINIA RECONDITA Rob. ex Desm. Bull. Soc. Bot. France 4: 798. 1857.

See Cummins and Caldwell (Phytopath. 46: 81-82. 1956.)

for a discussion of the nomenclature of this species.

Uredo rubigo-vera DC. Fl. Fr. 6: 83. 1815. See NOTE 1, p. 110.

Puccinia hordei Feld. Johnh. Nass. Ver. Nat. 27-28: 16. 1873. (nor

Puccinia hordei Fckl. Jahrb. Nass. Ver. Nat. 27-28:16. 1873. (non Otth, 1871.)

Puccinia rubigo-vera Wint. Rab. Krypt. Fl. 1: 217. 1881.

Under this binomial Arthur (Manual Rusts U. S. and Canada, p. 177. 1934.) sets up six "varieties", based on cultures and aecial hosts.

Puccinia procera Diet. et Holw. in Diet. Erythea 1: 249. 1893.

Puccinia cockerelliana Bethel ex Arth. Bull. Torr. Bot. Club 46: 113. 1919.

Puccinia rubigo-vera (DC.) Wint. f. sp. bromicola Mains Papers Mich. Acad. Sci., Arts and Letters 17: 345. 1933.

Puccinia hordei-murini Buchw. Ann. Mycol. 41: 308. 1943.

Puccinia bromi-maximi Guyot Uredineana 2: 50. 1946.

Puccinia bromicola Guyot Uredineana 2: 52. 1946.

PUCCINIA REDEMPTA Jacks. Mycologia 14: 107. 1922.

PUCCINIA REDFIELDIAE Tracy Jour. Myc. 7: 281, 1893.

\*\*PUCCINIA REPENTINA Jacks. et Holw. in Jacks. Mycologia 23: 489. 1931.
On Arracacia bracteata Coult. et Rose: Guatemala.

PUCCINIA RETECTA Syd. Ann. Mycol. 1:34. 1903.

PUCCINIA RHAETICA E. Fisch. Bull. Herb. Boiss. 7: 420. 1899.

PUCCINIA RIBIS DC. Fl. Fr. 2: 221. 1805.

Puccinia riparia Mains: See P. RIPULAE Mains

\*PUCCINIA RIPULAE Mains Bull. Torr. Bot. Club 66: 620. 1939. Puccinia riparia Mains Mich. Acad. Sci., Arts. Letters 22: 156. 1937. (Non Holw, 1904).

On Baccharis glutinosa Pers.: Texas

PUCCINIA ROMANZOFFIAE Jacks. Brooklyn Bot. Garden Mem. 1: 268, 1918.

PUCCINIA ROSENII Arth. Bull. Torr. Bot. Club 45: 144. 1918.

Puccinia rotundata Diet.: See P. NEOROTUNDATA Cumm.

PUCCINIA RUBEFACIENS Johans, Bot. Notiser 1886, 174, 1886.

PUCCINIA RUBICUNDA Holw. Ann. Mycol. 2:392. 1904.

Puccinia rubigo-vera (DC.) Wint.: See P. RECONDITA Rob. ex Desm.

Puccinia rubricans Holw.: See P. SANGUINOLENTA P. Henn.

PUCCINIA RUDBECKIAE Barth. No. Amer. Ured. No. 2862, 1923.

Puccinia ruelliae (Berk. et Br.) Lagh.: See P. LATERIPES Berk. et Rav.

PUCCINIA RUELLIAE-BOURGAEI Diet. et Holw. in Holw. Bot. Gaz. 31: 329. 1901.  $\label{eq:segregated} Segregated from $\underline{P}$. lateripes Berk. et Rav. on morphological grounds. On Ruellia bourgaei Hemsl., $\underline{R}$. geminiflora H. B. K., $\underline{R}$. hookeriana (Nees) Hemsl., $\underline{R}$.$ R. inundata H. B. K., R. williamsii Leonard : El Salvador, Honduras, Mexico.

PUCCINIA RUFESCENS Diet, et Holw. in Diet, Bot. Gaz. 18: 253, 1893.

PUCCINIA RUSSA Arth. et Cumm. Ann. Mycol. 31: 44. 1933.

PUCCINIA RYDBERGII Garrett Mycologia 6: 251. 1914.

PUCCINIA SALVIICOLA Diet. et Holw. in Holw. Bot. Gaz. 24: 33. 1897.

PUCCINIA SANGUINOLENTA P. Henn. Hedwigia 35: 228. 1896. Puccinia rubricans Holw. Jour. Myc. 10: 165. 1904. The host is Heteropteris and not Myrica.

PUCCINIA SARACHAE Mayor Mem. Soc. Neuch. Sci. Nat. 5: 499. 1913.

Pcucinia scaber (Ell. et Ev.) Barth.: See P. SUBSTERILIS Ell. et Ev.

PUCCINIA SCANDICA Johans. Bot. Notiser 1886: 175. 1886.

PUCCINIA SCHEDONNARDI Kell. et Swing. Jour. Myc. 4: 95, 1888.

PUCCINIA SCHISTOCARPHAE Jacks, et Holw, in Arth, Amer. Jour. Bot. 5: 534, 1918.

PUCCINIA SCHNEIDERII Schroet, in Schneider Herb, Schles, Pilze No. 448, 1879.

PUCCINIA SCIRPI DC. Fl. Fr. 2:223. 1805.

PUCCINIA SCLERIAE (Paz.) Arth. Mycologia 9: 75. 1917.

PUCCINIA SCLERIICOLA Arth. Bot. Gaz. 40: 204. 1905.

PUCCINIA SEMIINSCULPTA Arth. Bot. Gaz. 40: 204. 1905.

PUCCINIA SEMOTA Jacks. et Holw. in Arth. Amer. Jour. Bot. 5:531. 1918.

PUCCINIA SENECIONICOLA Arth. Bot. Gaz. 40: 199. 1905.

PUCCINIA SENILIS Arth. Bull. Torr. Bot. Club 47: 470. 1920.

\*\*PUCCINIA SEORSA Jacks. et Holw. in Jacks. Mycologia 24: 103. 1932. On Piptocarpha chontalensis Baker: Guatemala.

PUCCINIA SEPTENTRIONALIS Juel Oefv. Sv. Vet.-Akad. Foerh. 52:383. 1895.

PUCCINIA SERIPHIDII Fahrendorf Ann. Mycol. 39: 182. 1941.
On Artemisia tridentata Nutt.: U.S.A. (Segregated from P. absinthii (Hedw. f.)
DC. (P. tanaceti DC.)

PUCCINIA SESSILIS Schneid, ex Schroet, Abh. Schles, Ges. 48:19, 1870.

PUCCINIA SETARIAE Diet. et Holw. in Holw. Bot. Gaz. 24: 28. 1897.

PUCCINIA SEYMERIAE Burr. Bot. Gaz. 9: 189. 1884.

PUCCINIA SEYMOURIANA Arth. Bot. Gaz. 34: 11. 1902.

PUCCINIA SHERARDIANA Koern. Hedwigia 16: 19. 1877.

PUCCINIA SIEVERSIAE Arth. Bull. Torr. Bot. Club 31: 3. 1904.

PUCCINIA SILPHII Schw. Trans. Amer. Phil. Soc. II 4: 296. 1832.

Puccinia simulans (Pk.) Barth.: See P. CRYPTANDRI Ell. et Barth.

PUCCINIA SMILACIS Schw. Schr. Nat. Ges. Leipzig 1: 72. 1822. Aecidium apocyni Schw. Schr. Nat. Ges. Leipzig 1: 68. 1822.

PUCCINA SOLANI Schw. ex Berk, et Curt. Jour. Acad. Nat. Sci. Phil. II 2: 281. 1853.

Puccinia solanita Arth.: See P. CLAVIFORMIS Lagh.

\*PUCCÍNIA SOLHEIMII Cumm. Ann. Mycol. 38: 338. 1940. On <u>Dodecatheon pauciflorum</u> (Durand) Greene: Wyoming.

PUCCINIA SOLIDIPES Jacks. et Holw. in Arth. Amer. Jour. Bot. 5: 527. 1918.

PUCCINIA SORGHI Schw. Trans. Amer. Phil. Soc. II 4: 295. 1832.

PUCCINIA SPARGANIOIDES Ell. et Barth. Erythea 4: 2. 1896. Uredo peridermiospora Ell. et Tracy Jour. Myc. 6:77. 1890. See NOTE 1, p. 110. Puccinia peridermiospora Arth. Sci. II. 10:565. 1899.

PUCCINIA SPATIOSA Kern Mycologia 9: 213. 1917.

\*\*PUCCINIA SPEGAZZINIANA de T. in Sacc. Syll. Fung. 7: 644. 1888.

On Eleutheranthera ruderalis (Sw.) Sch. Bip.: El Salvador, Guatemala, Honduras.

PUCCINIA SPEGAZZINII deT. in Sacc. Syll. Fung. 7:704. 1888.

Puccinia sphaeralceae Gäum.: See P. SPHAERALCEOIDES Cumm.

\*PUCCINIA SPHAERALCEOIDES Cumm. Bull. Torr. Bot. Club 79: 224. 1952.

Puccinia sphaeralceae Gäum. Ber. Schweiz. Bot. Gesells. 57: 249. 1947.

(Non Ell. et Ev., 1897.)

On Phymosia rivularis (Dougl.) Rydb., Sphaeralcea ambigua Gray, S. orcuttii Rose: California, Idaho.

PUCCINIA SPHAEROMERIAE Fahrendorf Ann. Mycol. 39: 182. 1941.

On Sphaeromeria capitata Nutt.: Wyoming. Segregated from  $\underline{P}$ .  $\underline{absinthii}$  (Hedw. f.) DC. (P. tanaceti DC.).

PUCCINIA SPHENICA Arth. Bull. Torr. Bot. Club 38: 371. 1911.

PUCCINIA SPLENDENS Vize Grevillea 7: 11. 1878.

PUCCINIA SPOROBOLI Arth. Bull. Iowa Agric. Coll. Dept. Bot. 1884: 159. 1884.

Puccinia stakmanii Presley: See P. CACABATA Arth. et Holw.

PUCCINIA STIPAE Arth. Bull. Iowa Agric. Coll. Dept. Bot. 1884: 160. 1884.

Puccinia striolata (Speg.) Arth.: See P. MACROPODA Speg.

PUCCINIA STRIIFORMIS West. Bull. Soc. Roy. Acad. Belge 21(2): 235. 1854. (as striaeformis).

Uredo glumarum Schmidt Allgem. Äkon.-Tech. Fl. 1:27. 1827. See NOTE 1, p. 110.

Puccinia glumarum Eriks. et E. Henn. K. Landtbr.-Akad. Handl. o Tidskr. 33:169. 1894. Zeitschr. f. Pflanzenkr. 4:197. 1894.

The selection of the valid name for this species follows Hylander,  $J\phi rstad$ , and Nannfeldt (loc. cit. p. 75).

PUCCINIA STROMATICA Berk, et Curt, in Berk, Grevillea 3: 53. 1874.

PUCCINIA SUBANGULATA Holw. No. Amer. Ured. 1:25. 1905.

\*\*PUCCINIA SUBAQUILA Jacks. et Holw. in Jacks. Mycologia 24: 169. 1932.

On Wedelia acapulcensis H.B.K.: Guatemala, Honduras.

PUCCINIA SUBCIRCINATA Ell. et Ev. Jour. Myc. 3: 56. 1887.

PUCCINIA SUBCORONATA P. Henn. Hedwigia 34: 94. 1895.

Puccinia antioquiensis Mayor Mem. Soc. Neuch. Sci. Nat. 5: 473. 1913.

PUCCINIA SUBDECORA Syd. et Holw. in Syd. Ann. Mycol. 1:17. 1903.

PUCCINIA SUBDIGITATA Arth. et Holw. in Arth. Amer. Jour. Bot. 5: 468. 1918.

PUCCINIA SUBSTERILIS Ell. et Ev. Bull. Torr. Bot. Club 22: 58. 1895.

Uromyces scaber Ell. et Ev. Jour. Myc. 6: 119. 1891. Based on uredia only. See NOTE 1, p. 110.

Puccinia scaber Barth. North Amer. Ured. No. 2560. 1921.

PUCCINIA SUBSTRIATA Ell. et Barth. Erythea 5: 47. 1897.

Puccinia paspalicola Arth. Manual Rusts U. S. and Canada, p. 127. 1934.

Puccinia tubulosa Arth. Amer. Jour. Bot. 5: 464. 1918. (ex parte).

See Cummins (Mycologia 34: 683-686. 1942) for a discussion of this species.

PUCCINIA SUBTILIPES Speg. Anal. Mus. Nac. Hist. Nat. Buenos Aires 31: 386. 1922.

On Leptochloa scabra Nees, L. virgata (L.) Beauv.: Central and South America,

Mexico, West Indies.

PUCCINIA SUKSDORFII Ell. et Ev. Jour. Myc. 7: 130. 1892.

PUCCINIA SUPERFLUA Holw. Ann. Mycol. 2: 392. 1904.

PUCCINIA SUPERIOR Jacks. in Jacks. et Whetz. Trans. Brit. Myc. Soc. 13:20. 1928. Uredo superior Arth. Bull. Torr. Bot. Club 31:5. 1904. See NOTE 1, p. 110. Dicaeoma superius Arth. No. Amer. Flora 7:351. 1920. Telia not described.

PUCCINIA SWERTIAE Wint. Rabh. Krypt.-Fl. 1: 205. 1881.

PUCCINIA SYMPHORICARPI Hark. Bull. Calif. Acad. 1: 35. 1884.

PUCCINIA TAGETICOLA Diet. et Holw. in Holw. Bot. Gaz. 24: 26. 1897.

PUCCINIA TANACETI DC. Fl. Fr. 2: 222. 1805.

Uredo absinthii Hedw. f. ex DC. in Poir. Lam. Encyc. Meth. Bot. 8: 245. 1808. Puccinia absinthii DC. Fl. Fr. 5: 56. 1815.

The nomenclature of this species follows that set up by Hylander, J $\phi$ rstad, and Nannfeldt (loc. cit. p. 75).

PUCCINIA TARDISSIMA Garrett Mycologia 6: 251. 1914.

PUCCINIA TENUIS Burr. Bot. Gaz. 9: 188. 1884.

Caeoma (Aecidium) tenue Schw. Trans. Amer, Phil. Soc. II. 4:293. 1832. See NOTE 1, p. 110.

PUCCINIA TETRAMERII Seym. in Pringle Mex. Fungi No. 9. 1896.

\*PUCCINIA THALIAE Diet. Hedwigia 38: 250. 1899.

Uredo cannae Wint. Hedwigia 23: 172. 1884. See NOTE 1, p. 110.

Puccinia cannae P. Henn. Hedwigia 41: 105. 1902.

On Canna indica L., Thalia geniculata L.: Florida.

\*PUCCINIA THELYPODII Cumm. Mycologia 31: 170. 1939.

Puccinia lupinicola Gäum. Ber. Schweiz. Bot. Gesell. 57: 247. 1947.

On Thelypodium lasiophyllum (H. et A.) Greene: California. The host of P. lupinicola is probably T. lasiophyllum and not Lupinus benthami.

PUCCINIA THLASPEOS Schub. in Fic., Fl. Dresd. 2:254. 1823.

Puccinia holboellii (Hornem.) Rostr. Medd. Groen. 3: 534. 1888.

We follow Hylander, Jørstad, and Nannfeldt (loc. cit. p. 76) in reducing P. holboellii to synonymy.

PUCCINIA TITHONIAE Diet. et Holw. in Holw. Bot. Gaz. 24: 31. 1897.

PUCCINIA TOLIMENSIS Mayor Mem. Soc. Neuch. Sci. Nat. 5: 516, 1913.

PUCCINIA TOMIPARA Trel. Trans. Wis. Acad. Sci. 6: 127. 1885.

Segregated from the P. rubigo-vera (P. recondita Rob. ex Desm.) complex on the basis of multicellular teliospores.

\*\*PUCCINIA TRACHYTELA Syd. Ann. Mycol. 24: 290. 1926. On Tetrapteris seemanii Tr. et Planch.: Costa Rica.

PUCCINIA TRELEASIANA Paz. in Rabh. -Wint. -Paz. Fungi Eur. No. 3821. 1892.

Puccinia triannulata (Berk, et Curt.) Jacks.: See P. MIRIFICA Diet. et Holw.

Puccinia triniochloae (Arth. et Holw.) Barth.: See UREDO TRINIOCHLOAE Arth.

PUCCINIA TRIPSACI Diet. et Holw. in Holw. Bot. Gaz. 24: 27. 1897.

PUCCINIA TRIUMFETTAE Diet. et Holw. in Holw. Bot. Gaz. 24: 30. 1897.

PUCCINIA TRIXITIS Arth. Amer. Jour. Bot. 5:534. 1918.

Uredo trixitis Kern et Kell. Jour. Myc. 13:26. 1907. See NOTE 1, p. 110.

PUCCINIA TUMAMOCENSIS Arth. Bull. Torr. Bot. Club 42: 589. 1915.

PUCCINIA TUMIDIPES Pk. Bull. Torr. Bot. Club 12: 34. 1885.

PUCCINIA TURGIDIPES Jacks. Mycologia 14: 110. 1922.

Puccinia turrita Arth.: See P. PAZSCHKEI Diet. var. TRICUSPIDATAE Savile

PUCCINIA TURYUTENSIS Speg. Anal. Soc. Cien. Argent. 12:70. 1881.

Puccinia cressae Lagh. Bol. Soc. Brot. 7:131. 1889.

Lindquist (Bol. Soc. Argent. Bot. 5:35-36. 1953.) points out that the host of P. turyutensis is Cressa and not Convolvulus as given by Spegazzini.

Puccinia uliginosa Juel: See P. CARICINA DC. var. ULIGINOSA (Juel) Jørstad

PUCCINIA UMBILICI Guep. ex Duby. Bot. Gall. 2:890. 1830.

PUCCINIA UNICA Holw. in Arth. et Fromme Torreya 15: 263. 1915.

Puccinia unilateralis (Arth.) Cumm.: See POLIOMA UNILATERALIS (Arth.)
J. W. Baxter et Cumm.

PUCCINIA URBANIANA P. Henn. Hedwigia 37: 278. 1898.

PUCCINIA VACUA Diet. et Holw. in Holw. Bot. Gaz. 24: 30. 1897.

PUCCINIA VAGA Jacks. Mycologia 14: 112. 1922.

Puccinia vagans (DC.) Arth.: See P. PULVERULENTA Grev.

PUCCINIA VALIDA Arth. Bull. Torr. Bot. Club 42: 591. 1915.

PUCCINIA VARIA Arth. Amer. Jour. Bot. 5: 487. 1918.

PUCCINIA VARIABILIS Grev. Scott. Crypt. Fl. pl. 75. 1824.

PUCCINIA VELATA Arth. Amer. Jour. Bot. 5: 472. 1918. Uredo velata Ell. et Ev. Bull. Torr. Bot. Club 22: 435. 1895. See NOTE 1, p. 110.

PUCCINIA VERATRI Duby Bot. Gall. 2:890. 1830. Uredo veratri DC. in Lam. Encycl. 8:224. 1808. See NOTE 1, p. 110.

PUCCINIA VERBESINAE Schw. Schr. Nat. Ges. Leipzig 1: 73. 1822.

PUCCINIA VERGRANDIS Arth. et Holw. in Arth. Amer. Jour. Bot. 5: 474. 1918.

PUCCINIA VERNONIAE Schw. Trans. Amer. Phil. Soc. II. 4: 296. 1832.

PUCCINIA VERONICARUM DC. Fl. Fr. 2:594. 1805.

PUCCINIA VERSICOLOR Diet. et Holw. in Holw. Bot. Gaz. 24: 28. 1897.

PUCCINIA VERTISEPTA Tracy et Gall. Jour. Myc. 4:21, 1888.

PUCCINIA VERTISEPTOIDES Cumm. Ann. Mycol. 38: 338. 1940.

On Salvia regla Cav., S. sessei Benth.: Mexico. Segregated from P. vertisepta Tracy et Gall.

\*PUCCINIA VESICULOSA Schlecht. ex Ehr. in Nees v. Esenbeck Horae Phys. Berolin., p. 97. 1820.

On Anemone narcissiflora L. var. villosissima DC.: Unalaska.

PUCCINIA VEXANS Farl, Proc. Amer. Acad. Sci. 18:82, 1883.

PUCCINIA VILFAE Arth. et Holw. Bull. Iowa Lab. Nat. Hist. 4: 388. 1898.

PUCCINIA VINCAE Berk. in Smith Engl. Fl. V. 2:364. 1836. Uredo vincae DC. Fl. Fr. 6:70. 1815. See NOTE 1, p. 110.

PUCCINIA VIOLAE (Schum.) DC. Fl. Fr. 5: 62. 1815.
Uredo violae Schum. Enum. Plant. Saell. 2: 233. 1803. Telia present.

PUCCINIA VIRGATA Ell. et Ev. Proc. Acad. Nat. Sci. Phil, 1893; 154, 1893.

PUCCINIA VIRGAE-AUREAE (DC.) Lib. Pl. Crypt. Arduenn. IV, No. 393. 1837. Usually erroneously cited as Puccinia virgaureae.

PUCCINIA VOLKARTIANA E. Fisch. Ured. Schweiz., p. 381. 1904.

PUCCINIA WALDSTEINIAE Curt. ex Pk. Ann. Report N. Y. State Mus. 25: 120, 1873.

\*\*PUCCINIA WATTIANA Barcl. Jour. Asiatic Soc. Bengal 54: 109. 1890. On Clematis dioica L.: Guatemala.

Puccinia wentii Gäum.: See P. GRINDELIAE Pk.

PUCCINIA WINDSORIAE Schw. Trans. Amer. Phil. Soc. II. 4: 295. 1832.

PUCCINIA WULFENIAE Diet, et Holw, in Diet, Erythea 3: 79, 1895.

PUCCINIA XANTHII Schw. Schr. Nat. Ges. Leipzig 1: 73. 1822.

PUCCINIA XANTHIIFOLIAE Ell. et Ev. Jour. Myc. 6: 120. 1891.

PUCCINIA YOSEMITANA Blasd. Univ. Calif. Publ. Bot. 7: 150. 1919.

PUCCINIA ZALUZANIAE Arth. Bot. Gaz. 40: 205. 1905.

Puccinia zeugitis (Arth. et Holw.) Barth.: See UREDO ZEUGITIS Arth. et Holw.

PUCCINIA ZEXMENIAE Diet. et Holw. in Holw. Bot. Gaz. 24: 26. 1897.

PUCCINIA ZIZIAE Ell. et Ev. Bull. Torr. Bot. Club 22: 60. 1895.

Puccinia zorniae (Diet.) Barth.: See P. OFFUSCATA Arth.

PUCCINIASTRUM AGRIMONIAE (Diet.) Tranz. Scripta Bot. Hort. Univ. Imper. Petrop. 4: 301. 1895.

> Caeoma (Uredo) agrimoniae Schw. Trans. Amer. Phil. Soc. II. 4: 291. 1832. See NOTE 1, p. 110.

Thecopsora agrimoniae Diet. Hedwigia 29: 153. 1890. Telia first described.

Pucciniastrum alaskanum Mains; See UREDO ALASKANA (Mains) Cumm.

- PUCCINIASTRUM AMERICANUM (Farl.) Arth. Bull. Torr. Bot. Club 47: 468. 1920.
- PUCCINIASTRUM ARCTICUM Tranz. Scripta Bot. Hort. Univ. Imper. Petrop. 4:300. 1895.

Uredo arcticus Lagh. Hedwigia 28: 109. 1889. See NOTE 1, p. 110. Peridermium ingenuum Arth. Phytopath. 8: 336. 1918.

- PUCCINIASTRUM EPILOBII Otth Mith. Naturf. Ges. Bern 1861: 72 et 84. 1861.

  Uredo pustulata Pers. Syn. Meth. Fung., p. 219. 1801. See NOTE 1, p. 110.

  Pucciniastrum pustulatum Diet. in Engler et Prantl. Nat. Pflan. 1\*\*: 47. 1897.
- Pucciniastrum ericae (Naumann) Cumm.: See UREDO ERICAE Naumann
- Pucciniastrum fuchsiae Hirat. f.: See UREDO FUCHSIAE Arth. et Holw.
- Pucciniastrum galii (Lk.) E. Fisch.: See P. GUTTATUM (Schroet.) Hylander, Jørstad et Nannf.
- PUCCINIASTRUM GOEPPERTIANUM (Kuehn) Kleb. Wirtsw. Rost. p. 391. 1904. Calyptospora goeppertiana Kuehn Hedwigia 8: 81. 1869.
- Pucciniastrum goodyerae (Tranz.) Arth.: See UREDO GOODYERAE Tranz.
- PUCCINIASTRUM GUTTATUM (Schroet.) Hylander, Jørstad et Nannf. Opera Bot. 1:81. 1953.

Caeoma galii Lk. in Willd. Sp. Pl. Ed. 4, 6(2): 21. 1825. See NOTE 1, p. 110. Melampsora guttata Schroet. Abh. Schles. Ges. Vaterl. Cult. Nat. Abth. 1869-1872: 26. 1870.

Pucciniastrum galii E. Fisch. Beitr. Krypt.-Fl. Schweiz. 2 (2): 471. 1904.

- PUCCINIASTRUM HYDRANGEAE (Magn.) Arth. Res. Sci. Congr. Bot. Vienne, p. 337. 1906.
  - Uredo hydrangeae Berk. et Curt. ex Seym. Bot. Gaz. 9:191. 1884. See NOTE 1, p. 110.

Thecopsora hydrangeae Magn. in Vesterg, Micr. Rar. Sel. No. 571. 1902.

- Pucciniastrum myrtilli (Schum.) Arth.: See P. VACCINII (Wint.) Jørstad
- PUCCINIASTRUM POTENTILLAE Korn. in Jacz., Korn., et Tranz. Fungi Rossiae, No. 327. 1900.
- Pucciniastrum pustulatum (Pers.) Diet.: See P. EPILOBII Otth
- PUCCINIASTRUM PYROLAE Diet. ex Arth. No. Amer. Flora 7: 108. 1907.

  Aecidium pyrolae Pers. ex J. F. Gmel. in L. Syst. Nat. Ed. 13, 2: 1473.

  1791. Pre-starting point name for imperfect state only.

  Theopsora pyrolae Karst. Bidr. Finl. Nat. Folk 31: 59. 1879. Uredia only.

Pucciniastrum pirolae Schroet. Jahresber. Schles. Ges. Vaterl. Cult. 58: 167. 1880. Uredia only.

- PUCCINIASTRUM SPARSUM (Wint.) E. Fisch. Beitr. Krypt. Schweiz II. 2:469. 1904.
- PUCCINIASTRUM VACCINII (Wint.) Jørstad Skr. Vidensk.-Akad. Oslo I. 1951 (2): 55. 1952.

Aecidium myrtilli Schum. Enum. Pl. Saell. 2:227. 1803. See NOTE 1, p. 110. Melampsora vaccinii Wint. Hedwigia 19:56. 1880 (Telia not described). Rabh. Krypt.-Fl. Ed. 2, I, 1:244. 1882.

Pucciniastrum myrtilli Arth. Rés. Sci. Congr. Bot. Vienne, p. 337. 1906. (Telia not described). No. Amer. Flora 7: 109. 1907.

Pucciniola: See UROMYCES

- PUCCINIOSIRA BRICKELLIAE Diet. et Holw. in Holw. Bot. Gaz. 24: 34, 1897.
- \*\*PUCCINIOSIRA EUPATORII Lagh. ex Arth. Amer. Jour. Bot. 5: 435. 1918. On Eupatorium sp.: Guatemala, Honduras.
  - PUCCINIOSIRA PALLIDULA (Speg.) Lagh. Tromso Mus. Aarsh. 16: 122. 1894.
  - RAVENELIA ACACIAE-PENNATULAE Diet. Beih. Bot. Centralbl. 20: 373. 1906.
  - RAVENELIA ANNULATA Long Bot. Gaz. 61: 423. 1916.
- \*\*RAVENELIA ANTIGUANA Cumm. Bull. Torr. Bot. Club 67: 608. 1940. On Cassia biflora L.: Guatemala.
  - RAVENELIA APPENDICULATA Tranz. ex Diet. Hedwigia 33: 369. 1894.
  - RAVENELIA ARIZONICA Ell. et Ev. Bull. Torr. Bot. Club 22: 363. 1895.
  - RAVENELIA ARTHURII Long Jour. Myc. 12: 234. 1906.

    Ravenelia portoricensis Arth. Bull. Torr. Bot. Club 31: 5. 1904.

    No telia found.
  - RAVENELIA AUSTRALIS Diet. et Neg. Engler's Bot. Jahrb. 24: 161. 1897.
- \*\*RAVENELIA BIFENESTRATA Mains Carnegie Inst. Wash. Publ. 461: 97. 1935.
  On Pithecolobium platylobum (Spreng.) Urban: Mexico.
  - RAVENELIA BIZONATA Arth. et Holw. in Arth. Amer. Jour. Bot. 5:424. 1918.
  - RAVENELIA BRONGNIARTIAE Diet. et Holw. in Holw. Bot. Gaz. 24: 35. 1897.
  - Ravenelia caesalpiniae Arth.: See LIPOCYSTIS CAESALPINIAE (Arth.) Cumm.
  - RAVENELIA CASSIAECOLA Atk. Bot. Gaz. 16: 313. 1891.
  - RAVENELIA CASSIAE-COVESII Long et Goodding in Long Bot. Gaz. 72: 42. 1921.
  - RAVENELIA CAULICOLA Arth. No. Amer. Flora 7: 143. 1907.
  - RAVENELIA CEBIL Speg. Anal. Mus. Nac. Buenos Aires 19: 295. 1909.
  - Ravenelia cubensis Arth. et J. R. Johnston: See UREDO CUBENSIS (Arth. et J. R. Johnston) Cumm.
  - RAVENELIA DISTANS Arth. et Holw. in Arth. Amer. Jour. Bot. 5: 424. 1918.
- \*RAVENELIA DYSOCARPAE Long et Goodding Mycologia 31: 670. 1939. On Mimosa dysocarpa Benth. : Arizona.
  - RAVENELIA ECTYPA Arth. et Holw. in Arth. Mycologia 10: 120. 1918.
  - RAVENELIA ENTADAE Lagh, et Diet, in Diet, Hedwigia 33: 62, 1894.
  - RAVENELIA EPIPHYLLA (Schw.) Diet. Hedwigia 33: 27. 1894.
  - RAVENELIA EXPANSA Diet. et Holw. in Holw. Bot. Gaz. 24: 35. 1897.
- RAVENELIA FARLOWIANA Diet. Hedwigia 33: 369. 1894.

  Dendroecia farlowiana Arth. Rés. Sci. Cong. Bot. Vienne, p. 340. 1906.

RAVENELIA FRAGRANS Long Bot. Gaz. 35: 123. 1903.

RAVENELIA GRACILIS Arth. Bot. Gaz. 39: 393. 1905.

RAVENELIA GOODDINGII Long Bot. Gaz. 72:41. 1921.

RAVENELIA HAVANENSIS Arth. Bull. Torr. Bot. Club 48: 35. 1921.

RAVENELIA HIERONYMII Speg. Anal. Soc. Cien. Argent. 12: 66. 1881. Cystingophora hieronymii Arth. No. Amer. Flora 7: 131. 1907.

Ravenelia hoffmanseggiae Long: See UREDO HOFFMANSEGGIAE (Long) Cumm.

RAVENELIA HOLWAYI Diet. Hedwigia 33: 61. 1894.

Neoravenelia holwayi Long Bot. Gaz. 35: 131. 1903.

Puccinia prosopidis Bieberdorf, Mefferd et Blackmon Bull. Torr. Bot. Club 82: 131. 1955. On the basis of material in the National Fungus Collections this appears to be <u>Ravenelia holwayi</u>, although no telial spores were found.

\*RAVENELIA HUMPHREYANA P. Henn. Hedwigia 37: 278. 1898. On Poinciana pulcherrima L.: Florida, Texas.

RAVENELIA IGUALICA Arth. No. Amer. Flora 7: 136. 1907.

RAVENELIA INCONSPICUA Arth. Bot. Gaz. 39: 395. 1905.

RAVENELIA INDICA Berk. Gard. Chron. 1853:132. 1853.

\*RAVENELIA INDIGOFERAE Tranz. ex Diet. Hedwigia 33:369. 1894. On Indigofera sphaerocarpa A. Gray: Arizona.

Ravenelia ingae (P. Henn.) Arth.: See CHACONIA INGAE (Syd.) Cumm.

Ravenelia inquirenda Arth. et Holw.: See UREDO ACACIAE-BURSARIAE Cumm.

RAVENELIA IRREGULARIS Arth. No. Amer. Flora 7: 142. 1907.

RAVENELIA LAEVIS Diet. et Holw. in Holw. Bot. Gaz. 24: 35. 1897.

RAVENELIA LEUCANAE Long Bot. Gaz. 35: 126. 1903.

RAVENELIA LEUCANAE-MICROPHYLLAE Diet. Beih. Bot. Centralbl. 20: 375. 1906.

RAVENELIA LONCHOCARPI Lagerh. et Diet. in Diet. Hedwigia 33:46. 1894. See also Uredo ierensis Dale.

RAVENELIA LYSILOMAE Arth. Bot. Gaz. 39: 392. 1905.

RAVENELIA MAINSIANA Arth. et Holw. in Arth. Amer. Jour. Bot. 5: 426. 1918.

\*\*RAVENELIA MERA Cumm. Bull. Torr. Bot. Club 70: 78. 1943. (Published as R. mere in error.)

On Lonchocarpus michelianus Pittier, L. minimiflorus D. Smith, L. rugosus Benth.: Guatemala, Honduras, El Salvador.

RAVENELIA MESILLANA Ell. et Barth. in Ell. et Ev. Bull. Torr. Bot. Club 25: 508. 1898.

RAVENELIA MEXICANA Tranz. ex Diet. Hedwigia 33: 370. 1894.

RAVENELIA MIMOSAE-ALBIDAE Diet. Beih. Bot. Centralbl. 20: 378. 1906.

RAVENELIA MIMOSAE-COERULEAE Diet. Beih. Bot. Centralbl. 20: 378. 1906.

RAVENELIA MIMOSICOLA Arth. No. Amer. Flora 7: 137. 1907.

RAVENELIA MORONGIAE Long Bot. Gaz. 61: 418. 1916.

\*\*RAVENELIA OLIGOTHELIS Speg. Anal. Mus. Nac. Buenos Aires 19: 296. 1909. On Pithecolobium sophorocarpum Benth.: Costa Rica.

RAVENELIA OPACA Diet. Hedwigia 34: 291. 1895.

Dendroecia opaca Arth. No. Amer. Flora 7: 145. 1907.

RAVENELIA PAPILLIFERA Syd. Ann. Mycol. 1:330, 1903.

RAVENELIA PISCIDIAE Long Jour. Myc. 12: 234. 1906.

RAVENELIA PITHECOLOBII Arth. Bot. Gaz. 39: 394. 1905.

Ravenelia portoricensis Arth.: See R. ARTHURII Long

RAVENELIA RETICULATAE Long Bot. Gaz. 61: 421. 1916.

RAVENELIA ROEMERIANAE Long Bot. Gaz. 64: 59. 1917.

RAVENELIA SIDEROCARPI Long Bot. Gaz. 64: 57. 1917.

Ravenelia siliquae Long: See RAVENELIA SPEGGAZZINIANA Lindquist

RAVENELIA SIMILIS (Long) Arth. Bot. Gaz. 39: 396. 1905.

RAVENELIA SOLOLENSIS Arth. et Holw. in Arth. Amer. Jour. Bot. 5: 425. 1918.

RAVENELIA SPEGAZZINIANA Lindquist Bol Soc. Argent. Bot. 1: 300. 1946.
Ravenelia siliquae Long Bot. Gaz. 35: 118. 1903. Telia not reported.

RAVENELIA SPINULOSA Diet. et Holw. in Holw. Bot. Gaz. 31: 336. 1901.

RAVENELIA STEVENSII Arth. Mycologia 7: 178. 1915.

RAVENELIA SUBTORTUOSAE Long Bot. Gaz. 72: 40. 1921.

Neoravenelia subtortuosae (Long) Arth. No. Amer. Flora 7: 704. 1925.

RAVENELIA TALPA (Long) Arth. Bot. Gaz. 39: 396. 1905.

RAVENELIA TEXENSIS Ell. et Gall. ex Diet. Hedwigia 33: 42. 1894.

RAVENELIA THORNBERIANA Long Bot. Gaz. 61: 420. 1916.

RAVENELIA VERRUCOSA Cke. et Ell. Grevillea 15: 112, 1887.

RAVENELIA VERSATILIS Diet. Hedwigia 33: 64. 1894. Uromyces versatilis Pk. Bot. Gaz. 7: 56. 1882. Telia not described.

- \*\*ROESTELIA GUATEMALIANA (Crowell) Cumm. Mycologia 48: 606. 1956.
  - Gymnosporangium guatemalianum Crowell Canadian Jour. Bot. C 18:11. 1940. Telial state unknown.
  - On Amelanchier nervosa (Done.) Standl.: Guatemala.
  - SCOPELLA BAUHINIICOLA Cumm. Mycologia 48: 606. 1956. Uredo bauhiniicola P. Henn. Hedwigia 34: 98. 1895. See NOTE 1, p. 110. Scopella bauhiniicola Cumm. Bull. Torr. Bot. Club 67: 72. 1940.

Latin diagnosis not provided.

- \*\*SCOPELLA KEVORKIANII Cumm. Bull. Torr. Bot. Club 77: 206. 1950. On Mimusops albescens (Benth.) Baill.: Cuba.
- \*SCOPELLA SAPOTAE Mains ex Cumm. Mycologia 48: 607. 1956.

Uredo sapotae Arth. et J.R. Johnston Mem. Torr. Bot. Club 17:169. 1918. See NOTE 1, p. 110.

Scopella sapotae Mains Ann. Mycol.  $37\colon 59$ . 1939. Latin diagnosis not provided.

On Achras sapota L.: Florida

SKIERKA CRISTATA Mains Mycologia 31: 182. 1939.

Uredo cristata Speg. Anal. Soc. Cien. Argent. 17: 119. 1884. See NOTE 1, p. 110.

Ctenoderma cristata (Speg.) Syd. Ann. Mycol. 17: 102. 1920.

SKIERKA HOLWAYI Arth. Amer. Jour. Bot. 5: 433. 1918.

SPHAEROPHRAGMIUM DALBERGIAE Diet. Hedwigia 32: 30. 1893.

- \*\*SPHAEROPHRAGMIUM FIMBRIATUM Mains Carnegie Inst. Wash. Publ. 461: 96. 1935.
  On Dalbergia glabra (Mill.) Standl., Dalbergia sp.: Guatemala, Nicaragua.
- \*\*SPHENOSPORA KEVORKIANII Linder Mycologia 36: 464. 1944.

On Epidendron difforme Jacq., Oncidium sp., Schomburgkia sp., Sobralia sp., Stanhopea sp.: Nicaragua, Panama.

\*SPHENOSPORA MERA Cumm. Bull. Torr. Bot. Club 72: 214. 1945. On Bletilla striata Reichb. f., Bletilla sp.: Florida, Honduras.

SPHENOSPORA SMILACINA Syd. Ann. Mycol. 23: 318. 1925.
Uredo yurimaguasensis P. Henn. Hedwigia 43: 164. 1904. See NOTE 1, p. 110.
Sphenospora yurimaguasensis Jacks. Mycologia 18: 153. 1926.

Sphenospora yurimaguasensis (P. Henn.) Jacks.: See S. SMILACINA Syd.

Spirechina arthuri (Syd.) Arth.: See KUEHNEOLA ARTHURI (Syd.) Jacks.

Spirechina epiphylla Arth.: See MAINSIA EPIPHYLLA (Arth.) Jacks.

Spirechina loeseneriana (P. Henn.) Arth.: See KUEHNEOLA LOESENERIANA (Arth.)

Jacks. et Holw.

Spirechina pittieriana (P. Henn.) Arth.: See MAINSIA PITTIERIANA (P. Henn.) Jacks.

Spirechina rubi (Diet. et Holw.) Arth.: See MAINSIA RUBI (Diet. et Holw.) Jacks.

\*\*SPUMULA QUADRIFIDA Mains Mycologia 27: 638. 1935. On Calliandra bijuga Rose: Mexico.

Synomyces reichei (Diet.) Arth.: See COLEOSPORIUM REICHII Diet.

- \*\*TEGILLUM FIMBRIATUM Mains Bull. Torr. Bot. Club 67: 707. 1940. On Vitex sp.: British Honduras.
  - Teleutospora: See UROMYCES
  - TRACHYSPORA INTRUSA (Grev.) Arth. Manual Rusts U. S. and Canada, p. 97. 1934. Uredo intrusa Grev. Fl. Edin., p. 436. 1824. Telia described.
  - TRANZSCHELIA ANEMONES (Pers.) Nannf. in Lundell et Nannfeldt Fungi Exs. Suec. No. 839a. 1939.
  - Hylander, Jørstad, and Nannfeldt (loc. cit. p. 84) place  $\underline{T}$ . fusca (Pers.) Diet.,  $\underline{T}$ . suffusca (Holw.) Arth. and  $\underline{T}$ . thalictri (Chev.) Diet. in synonymy with  $\underline{T}$ . anemones.
  - TRANZSCHELIA ARTHURI Tranz. et Litv. Jour. de Bot. 24: 250. 1939.

    On Prunus serotina: North America. Segregated from T. pruni-spinosae, but not yet studied in this country for validity.
  - TRANZSCHELIA COHAESA (Long) Arth. Rés. Sci. Congr. Bot. Vienne, p. 340. 1906.
  - TRANZSCHELIA DISCOLOR (Fckl.) Tranz. et Litv. Jour. de Bot. 24: 248. 1939.

    Tranzschelia pruni-spinosae (Pers.) Diet. var. discolor Dunegan Phytopath.
    28: 424. 1938.
  - On Prunus spp. (cultivated forms) throughout the world. Segregated from  $\underline{T}$ . pruni-spinosae (Pers.) Diet.
  - TRANZSCHELIA FUSCA Diet. Ann. Myc. 20: 31. 1922.

    Aecidium fuscum Pers. ex G. F. Gmel. in L. Syst. Nat. Ed. 13, 2: 1473. 1791.

    Contains telia, but is pre-starting point.

    See also T. anemones (Pers.) Nannf.
  - TRANZSCHELIA PRUNI-SPINOSAE (Pers.) Diet. Ann. Myc. 20: 212. 1922.
  - TRANZSCHELIA PRUNI-SPINOSAE (Pers.) Diet. var. TYPICA (E. Fisch.) Dunegan Phytopath. 28: 423. 1938.
  - Under a strict interpretation of the code, this becomes  $\underline{T}$ .  $\underline{pruni-spinosae}$  (Pers.) Diet. var. pruni-spinosae.
  - Tranzschelia pruni-spinosae (Pers.) Diet. var. discolor (E. Fisch.) Dunegan: See T. DISCOLOR (Fckl.) Tranz. et Litv. 4
  - TRANZSCHELIA SUFFUSCA (Holw.) Arth. Manual Rusts U. S. and Canada, p. 73. 1934. See also T. anemones (Pers.) Nannf.
  - TRANZSCHELIA THALICTRI (Chev.) Diet. Ann. Mycol. 20: 31. 1922. See also T. anemones (Pers.) Nannf.
  - TRANZSCHELIA TUCSONENSIS (Arth.) Diet. Ann. Myc. 20: 31. 1922. Lipospora tucsonensis Arth. Bull. Torr. Bot. Club 48: 36. 1921.
  - TRANZSCHELIA VIORNAE (Arth.) Arth. Manual Rusts U. S. and Canada, p. 74. 1934.
  - Tricella acuminata Long: See PHRAGMOPYXIS ACUMINATA (Long) Syd.
  - TRIPHRAGMIUM ULMARIAE (DC.) Lk. in Willd. Sp. Plant. 6 (2): 84. 1825.

    Puccinia ulmariae Hedw. f. ex DC. in Poir. in Lam. Encyc. Méth. Bot:
    8: 245. 1808. DC. Fl. Fr. 5: 56. 1815.
  - URAECIUM EXTENSUM (Arth.) Cumm. Mycologia 48: 607. 1956.
    Pileolaria extensa Arth. No. Amer. Flora 7: 148. 1907. Telia not reported.

URAECIUM HOLWAYI (Arth.) Arth. Bull. Torr. Bot. Club 60: 476. 1933.

Uraecium lucumae (Arth. et J. R. Johnston) Arth.: See ACHROTELIUM LUCUMAE Arth.

## UREDINOPSIS

The treatment of this genus in Arthur's Manual was completely reworked by J. H. Faull in his comprehensive study "Taxonomy and Geographical Distribution of the Genus Uredinopsis" published as Contribution from the Arnold Arboretum 11, 1938. Several species were divided, others added, and many new hosts and distribution records added. For details not given in the listings hereafter see Faull's monograph.

UREDINOPSIS AMERICANA Syd. Ann. Mycol. 1: 325. 1903.

Septoria mirabilis Pk. Ann. Report N.Y. State Mus. 25:87. 1873. See NOTE 1, p. 110.

Uredinopsis mirabilis Magn. Hedwigia 43: 121. 1904.

Segregated from U. mirabilis (Pk.) Magn. (pro parte) of the "Manual."

UREDINOPSIS ARTHURII Faull Contrib. Arnold Arbor. 11: 101-102. 1938.

On Woodwardia virginica (L.) Sm. Segregated from U. struthiopteridis Stoermer. of the "Manual."

UREDINOPSIS ARTHURII Faull var. MACULATA Faull Contrib. Arnold Arbor.

On Woodwardia areolata (L.) Moore. Segregated from <u>U. mirabilis</u> (Pk.) Magnof the "Manual."

UREDINOPSIS ASPERA Faull Contrib. Arnold Arbor. 11: 79-80. 1938.

On Pteridium aquilinum (L.) Kuehn var. lanuginosa (Bong.) Fernald. Segregated from U. macrosperma (Cke.) Magn. of the "Manual."

UREDINOPSIS ATKINSONII Magn. Hedwigia 43: 123. 1904.

On Abies balsamea (L.) Mill., Dryopteris thelypteris var. pubescens (Lawson) A.R. Prince: U.S.A., and Canada. Reinstated from U. struthiopteridis Stoermer of the "Manual."

UREDINOPSIS CERATOPHORA Faull Contrib. Arnold Arbor. III: 52-53. 1938.

On <u>Abies balsamea</u> (L.) Mill., <u>Cystopteris bulbifera</u> (L.) Bernh.: Indiana, New York, <u>Wisconsin</u>, Ontario. Segregated from <u>U. struthiopteridis</u> Stoermer of the "Manual."

UREDINOPSIS COPELANDII Syd. Ann. Mycol. 2:30. 1904.

On Athyrium cyclosorum Rupr.: California. Reinstated from  $\underline{U}$ . struthiopteridis Stoermer of the "Manual" by Faull (loc. cit. p. 39).

\*UREDINOPSIS GLABRA Faull Contrib. Arnold Arbor. 11: 55-56. 1938.

On Chilanthes pyramidalis Fee, Cystopteris fragilis (L.) Bernh., Pellaea cordata (Cav.) J. Sm.: New Mexico, Mexico.

Uredinopsis investita Faull: See UREDO INVESTITA (Faull) Cumm.

UREDINOPSIS LONGIMUCRONATA Faull Contrib. Arnold Arbor. 11: 44. 1938.

Segrated from U. struthiopteridis Stoermer ex parte. Faull also sets up
U. longimucronata forma cyclosora (loc. cit. p. 48).

UREDINOPSIS LONGIMUCRONATA var. ACROSTICHOIDES Faull Contrib. Arnold Arbor. 11: 50. 1938.

On Athyrium thelypteroides (Michx.) Desv.: New Hampshire, New York, Wisconsin.

Uredinopsis macrosperma (Cke.) Magn.: See U. PTERIDIS Diet. et Holw.

Uredinopsis mirabilis (Pk.) Magn.: See U. AMERICANA Syd.

- UREDINOPSIS OSMUNDAE Magn. Hedwigia 43: 123. 1904.
- UREDINOPSIS PHEGOPTERIDIS Arth. No. Amer. Flora 7: 117. 1907.
- UREDINOPSIS PTERIDIS Diet. et Holw. in Diet. Ber. Deutsch. Bot. Ges. 13: 331. 1895.

  Uredo macrospermum Cke. Grevillea 8: 71. 1879. See NOTE 1, p. 110.

  Uredinopsis macrosperma Magn. Hedwigia 43: 122. 1904.
- UREDINOPSIS STRUTHIOPTERIDIS Stoermer ex Diet. Ber. Deutsch. Bot. Ges. 13: 331. 1895.
  - Uredinopsis struthiopteridis Stoermer Bot. Notiser, p. 81. 1895. Telia not described.
- UREDINOPSIS VIRGINIANA Faull Contrib. Arnold Arbor. 11: 92. 1938.

  On Pteridium aquilinum var. pseudocaudatum Clute: Eastern and Central U. S.
  Included in U. macrosperma (Cke.) Magn. (U. pteridis Diet. et Holw.) in the Manual.
- UREDO ACACIAE-BURSARIAE Cumm. Mycologia 48: 607. 1956.

  Ravenelia inquirenda Arth. et Holw. Amer. Jour. Bot. 5: 423. 1918.

  Telia not described. Non <u>Uredo inquirenda Arth.</u> (Bull. Torr. Bot. Club 34: 592. 1907.) which applies to another rust and cannot be taken up for the species involved here.
- UREDO ADENOCAULONIS (Jacks.) Cumm. Mycologia 48: 607. 1956.

  Coleosporium adenocaulonis Jacks. Brooklyn Bot. Garden Mem. 1: 202.

  1918. Based on uredia.
- UREDO AESCHYNOMENIS Arth. Bot. Gaz. 39: 392. 1905.
  Phakopsora aeschynomenis Arth. Bull. Torr. Bot. Club 44: 509. 1917.
  Telia unknown.
- \*UREDO ALASKANA (Mains) Cumm. Mycologia 48: 607. 1956.

  Pucciniastrum alaskanum Mains Bull. Torr. Bot. Club 66: 620. 1939.

  Based on uredia.

  On Gentiana glauca Pall.: Alaska.
- UREDO AMICOSA Arth. Bull. Torr. Bot. Club 46: 121. 1919.
- \*\*UREDO ANACARDII Mains Carnegie Inst. Wash. Publ. 461: 104. 1935. On Anacardium occidentale L.: Guatemala.
  - Uredo antiguensis Cumm.: See PHAKOPSORA ANTIGUENSIS Kern et Thurston
  - UREDO ANTHURII (Hariot) Sacc. Syll. Fung. 11: 229. 1895.
  - UREDO ARIDA (Jacks. in Arth.) Cumm. Mycologia 48: 607. 1956.
    Coleosporium aridum Jacks. in Arth. Bull. Torr. Bot. Club 51: 52.
    1924. Based on uredia.
  - UREDO ARTOCARPI Berk, et Br. Jour. Linn. Soc. 14: 93. 1873.

    Physopella artocarpi Arth. No. Amer. Flora 7: 103. 1907. Telia unknown.
  - UREDO ARUNDINELLAE Arth. et Holw. in Arth. Mycologia 10: 148. 1918.

    Puccinia arundinellae Barth. Handbook No. Amer. Ured. Ed. 1, p. 88.

    1928. Telia unknown.
  - Uredo bauhiniicola P. Henn.: See SCOPELLA BAUHNINIICOLA Cumm.
  - UREDO BEHNICKIANA P. Henn. Hedwigia 44: 169. 1905.

Uredo biporula Arth.: See PUCCINIA BIPORULA J. W. Baxter

UREDO BIXAE Arth. Mycologia 7: 327. 1915.

UREDO BORRERIAE (P. Henn.) Kern et Whetz. Mycologia 18: 42. 1926.

UREDO BUCHENAVIAE Kern et Whetz. Mycologia 18:40. 1926.

\*\*UREDO BULLULA Kern Mycologia 20: 77. 1928. On Eupatorium sp.: Dominican Republic.

UREDO CAMPELIAE Kern et Whetz. Mycologia 18: 40. Feb. 1926.

Uredo campeliae Syd. Ann. Mycol. 24: 294. Dec. 1926.

On Campelia zanonia (L.) H.B.K.: Costa Rica, Nicaragua, Puerto Rico.

UREDO CEPHALANTHI Arth. Bull. Torr. Bot. Club 29: 231. 1902.

Uredo cherimoliae Lagh.: See PHAKOPSORA CHERIMOLIAE Cumm.

UREDO CLUSIAE Arth. Mycologia 9: 91. 1917.

UREDO COCCOLOBAE P. Henn. Hedwigia 35: 253. 1896.

\*\*UREDO COLUBRINAE Cumm. Bull. Torr. Bot. Club 70: 79. 1943. On Colubrina ferruginosa Brongn.: Guatemala.

Uredo commelyneae Kalchbr.: See PHAKOPSORA TECTA Jacks. et Holw.

UREDO CONSIMILIS (Arth.) Cumm. Mycologia 48: 607. 1956.
Milesia consimilis Arth. Mycologia 7: 176. 1915. Based on uredia.

UREDO CONTRARIA Arth. Bull. Torr. Bot. Club 47: 472. 1920.

UREDO CUBENSIS (Arth. et J. R. Johnston) Cumm. Mycologia 48: 607. 1956.
Ravenelia cubensis Arth. et J. R. Johnston Mem. Torr. Bot. Club
17: 118. 1918. Based on uredia.

Uredo cumula Arth.: See PUCCINIA BUCHNERAE Cumm.

UREDO CUPHEAE P. Henn. Hedwigia 34: 99. 1895.

UREDO CURVATA Arth. Bull. Torr. Bot. Club 49: 195, 1922.

UREDO CYATHULAE Mayor Mem. Soc. Neuch. Sci. Nat. 5: 584. 1913.

Uredo degener (Mains et Holw.) Arth.: See PUCCINIA DEGENER Mains et Holw.

\*\*UREDO DETECTA Mains Contrib. Univ. Mich. Herb. 1:16. 1939. On Arrabidaea floribunda (H.B.K.) Loes.: British Honduras.

UREDO DIOSCOREAE P. Henn. Hedwigia 35: 255. 1896.

Records of this species in No. Amer. Flora (7: 606. 1924.) should all be transferred to U. dioscoreicola.

UREDO DIOSCOREICOLA Kern, Cif. et Thurston Ann. Mycol. 31:24, 1933. Uredo dioscoreae apud No. Amer. Flora 7:606, 1924. (Non P. Henn. 1896).

UREDO EGENULA Arth. Bull. Torr. Bot. Club 45: 155. 1918.

Puccinia egenula Barth. Handbook No. Amer. Ured. Ed. 1, p. 108.

1933. Telia unknown.

- \*\*UREDO EICHHORNIAE Gonz.-Frag. et Cif. Bol. R. Soc. Esp. Hist. Nat. 27: 69. 1927.
  On Eichhornia crassipes (Mart.) Solms.: Dominican Republic.
  - \*UREDO EPIDENDRI P. Henn. Hedwigia 35: 254. 1896.

    On Oncidium lieboldii Reichb.: Florida, Honduras, Mexico (on material intercepted by Plant Quarantine Service).
  - \*UREDO ERICAE Naumann Jahresb. Vereinig. Angew. Bot. 9: 207. 1912.

    Pucciniastrum ericae Cumm. Mycologia 27: 613. 1935. Telia unknown.

    On Erica hyemalis Nichols: California.
- \*\*UREDO ERYTHRINAE P. Henn. Fl. Bas.-et Moyen-Congo in Ann. Mus. Congo 2 (3): 224. 1908.

On Erythrina berteroana Urban: Guatemala.

Uredo erythroxylonis Graz.; See BUBAKIA ERYTHROXYLONIS Cumm.

\*\*UREDO FARINOSA P. Henn. Hedwigia 36: 216. 1897. On Ocotea leucoxylon (Sw.) Mez.: Puerto Rico.

UREDO FICINA Juel Bih. Sv. Vet. Akad. Handl. 23 (3): 25. 1897.

Physopella ficina Arth. No. Amer. Flora 7: 103. 1907. Segregated from Cerotelium fici (Butl.) Arth. as distinct.

UREDO FLORIDANA Syd. Hedwigia 40 (Beibl.): 129. 1901.

UREDO FUCHSIAE Arth. et Holw. in Arth. Amer. Jour. Bot. 5:538, 1918.

Pucciniastrum fuchsiae Hirat. f. Jour. Fac. Agr. Hokkaido Imper.

Univ. 21:98, 1929. Telia unknown.

UREDO GAILLARDIAE Diet. et Holw. in Diet. Erythea 7: 98. 1899.

Puccinia gaillardiae Barth. Handbook No. Amer. Ured. Ed. 1, p. 115. 1928.

This species could be referred to the form genus Uraecium.

UREDO GARCILASSAE P. Henn. Hedwigia 43: 160. 1904.

\*\*UREDO GEOPHILICOLA P. Henn. Hedwigia 43: 161. 1904. On Geophila herbacea (Jacq.) Schum.: British Honduras.

UREDO GOODYERAE Tranz. Trudi S. Petersb. Obschch. Est. Otd. Bot. 23: 28. 1893.

Pucciniastrum goodyerae Arth. No. Amer. Flora 7: 105. 1907. Telia unknown.

UREDO GUACAE Mayor Mem. Soc. Neuch. Sci. Nat. 5: 583. 1913.

On Epidendrum nocturnum Jacq., E. tampense Lindl.: Florida. Also commonly intercepted by Plant Quarantine Inspectors on various orchids.

\*\*UREDO GUAYNABENSIS Kern et Whetz. Mycologia 18:41. 1926.

On Jussiaea angustifolia Lam., J. peruviana L.: Florida, Isle of Pines, Jamaica, Puerto Rico.

UREDO GYNANDREARUM Cda, Icon. Fung. 3:3. 1839.

UREDO HAMELIAE Arth. Mycologia 8: 23. 1916.

UREDO HOFFMANSEGGIAE (Long) Cumm. Mycologia 48: 608. 1956.
Ravenelia hoffmanseggiae Long Bot. Gaz. 64: 57. 1917. Telia unknown.

UREDO HYMENAEAE Mayor Mem. Soc. Neuch. Sci. Nat. 5: 585. 1913.

UREDO HYPOXIDIS P. Henn. Hedwigia 40 (Beibl.): 173. 1901. Segregated from Uromyces affinis Wint. (q. v.)

- UREDO IERENSIS Dale Commonwealth Myc. Inst. Myc. Papers 59: 8. 1955.

  On Lonchocarpus latifolius H. B. K.: Cuba, Guatemala; Lonchocarpus salvadorensis Pittier: El Salvador. Segregated from Ravenelia lonchocarpi Lagh.
- UREDO IGNAVA Arth. Bull. Torr. Bot. Club 46: 121. 1919.
  Puccinia ignava Arth. Mycologia 14: 17. 1922. Telia unknown
- UREDO INCOMPOSITA Kern Mycologia 11: 143. 1919.

  Puccinia incomposita Barth. Handbook No. Amer. Ured. Ed. 1, p. 127.

  1928. Telia unknown.
- UREDO INGAE P. Henn. Hedwigia 38 (Beibl.): 69. 1899.

  Mains (Mycologia 31: 33-42. 1939.) considers that this is probably distinct from Chaconia (Bitzea) ingae (Syd.) Cumm. (q.v.).
- UREDO INVESTITA (Faull) Cumm. Mycologia 48: 608. 1956.
  Uredinopsis investita Faull Contrib. Arnold Arbor. 11: 35-36. 1938.
  Telia unknown.
- Uredo jatrophicola Arth.: See PHAKOPSORA JATROPHICOLA Cumm.
- UREDO JUCUNDA Syd. Ann. Mycol. 23: 324. 1925.
- UREDO KYLLINGIAE P. Henn. Hedwigia 35: 256. 1896. Segregated from Puccinia cyperi Arth.
- \*UREDO LAETICOLOR Arth. Bull. Torr. Bot. Club 47: 473. 1920. On Ipomoea dissecta Jacq.: Florida.
  - UREDO LICANIAE P. Henn. Hedwigia 34: 99. 1895.
  - Uredo lucumae Arth. et J. R. Johnston: See ACHROTELIUM LUCUMAE Cumm.
  - UREDO LUTEA Arth. Mycologia 7: 321. 1915.
- \*\*UREDO MACHAERIICOLA Cumm. Bull. Torr. Bot. Club 70: 79. 1943. On Machaerium biovulatum Mich.: Guatemala.
  - UREDO MACULANS Pat. et Gaill. Bull. Soc. Myc. France 4: 98. 1888.
- \*\*UREDO MARTYNII Dale Commonwealth Myc. Inst. Myc. Paper 60: 14. 1955. On Isachne arundinacea Griseb.: Jamaica.
  - UREDO MAURIAE Syd. Ann. Mycol. 23: 325. 1925.

    Uredo roupalae Cumm. Bull. Torr. Bot. Club 64: 43. 1937.

    The host is Mauria and not Roupala.

    On Mauria glauca D. Sm.: Costa Rica.
- \*UREDO MCKINLEYENSIS Cumm. Bull. Torr. Bot. Club 79: 231. 1952. On <u>Salix reticulata</u> var. gigantifolia Ball: Alaska.
- UREDO MEXICANA (Arth.) Cumm. Mycologia 48: 608. 1956.
  Pileolaria mexicana Arth. No. Amer. Flora 7: 149. 1907. Telia unknown.
- \*\*UREDO MONOCHAETII Kern et Thurston Mycologia 36: 63. 1944.

  On Heterocentron axillare Naud., H. salvadoranum Gleason: Guatemala,
  El Salvador.
- \*\*UREDO MONSTERAE Syd. Ann. Mycol. 28: 51. 1930.
  On Philodendron sp.: Mexico (intercepted by Plant Quarantine Service).

- \*\*UREDO MUHLENBECKIAE Jacks. et Holw. in Jacks. Mycologia 19: 62. 1927.
  On Muhlenbeckia tamnifolia Meissn.: Guatemala.
  - UREDO NEOPUSTULATA Cumm. Mycologia 48: 608. 1956.
    Uredo pustulata P. Henn. Hedwigia 35 (Beibl.): 129. 1899. (Non Pers. 1801.).
  - UREDO NICOTIANAE Anas., Sacc. et Splendore in Anas. et Splendore Boll.
    Tecn. Tabac. Ist. Scafati 3: 53. 1904.
  - UREDO NIBULARII P. Henn. Hedwigia 37: 206. 1898. On Tillandsia sp.: Mexico (intercepted by Plant Quarantine Service).
- \*UREDO NIGROPUNCTA P. Henn. Hedwigia 35: 254. 1896.
  On Cyrtopodium punctatum Lindl., Polystachya minuta Britt.: California, Florida.
- \*UREDO NOCIVIOLA Jacks. et Holw. in Jacks. Mycologia 18: 144. 1926 On Cyperus ferax Rich.: Grenada, Florida.
  - UREDO NOMINATA Arth. Bull. Torr. Bot. Club 49: 194. 1922.
- \*\*UREDO OBNIXA Cumm. Bull. Torr. Bot. Club 70: 80. 1943. On Cyperus melanostachyus H. B. K.: Guatemala.
  - UREDO OBOVATA (Arth.) Cumm. Mycologia 48: 608. 1956.

    Desmella obovata Arth. Mycologia 21: 78. 1929. Telia unknown.

    Hyalopsora obovata Cumm. Ann. Mycol. 38: 336. 1940. Telia-unknown.
- \*UREDO ONCIDII P. Henn. Hedwigia 41: 15. 1902.

  On Oncidium bicallosum Lindl., O. cebolleta Sw., O. lanceanum Lindl.:

  California (in greenhouse); Guatemala, Mexico (Intercepted by Plant Quarantine Service).
- \*\*UREDO ORNITHIDII Kern, Cif. et Thurston Ann. Mycol. 31:25. 1933.
  On Ornithidium coccineum (Jacq.) Salisb.: Dominican Republic.
  - UREDO PANAMENSIS Arth. Bull. Torr. Bot. Club 45: 155. 1918.
  - UREDO PARONYCHIAE Jacks, in Arth. No. Amer. Flora 7: 610. 1924.
  - Uredo paspalicola P. Henn.: See ANGIOPSORA COMPRESSA Mains
  - UREDO PERIBEBUYENSIS Speg. Anal. Soc. Cien. Argent. 17: 123. 1884.
  - UREDO PHORADENDRI Jacks. Brooklyn Bot. Garden Mem. 1: 285. 1918.
  - UREDO PIPERIS P. Henn. Hedwigia 38 (Beibl.): 70. 1899.
  - UREDO PISCARIAE (Jacks.) Cumm. Mycologia 48: 608. 1956.

    Melampsora piscariae Jacks. Brooklyn Bot. Garden Mem. 1: 212. 1918.

    Based on uredia.
- \*\*UREDO POLYTAENII Kern, Cif. et Thurston Ann. Mycol. 31:26. 1933. On Polytaenium feei (Schaffn.) Maxon: Dominican Republic.
  - UREDO POSITA J. J. Davis ex Arth. Torreya 34: 46. 1934.
  - Uredo pustulata P. Henn.; See U. NEOPUSTULATA Cumm.
- \*\*UREDO QUICHENSIS Cumm. Bull. Tor. Bot. Club 70: 80. 1943.
  On Calliandra conzattiana (Britt. et Rose) Standl.: Guatemala

UREDO RAMONENSIS Syd. Ann. Mycol. 23: 325. 1925.

UREDO RECONDITA Speg. Bol. Acad. Cien. Cordoba 23: 186. 1919.

UREDO REICHEANA Arth. No. Amer. Flora 7:617. 1924.

UREDO RONDELETIAE Arth. et Holw. in Arth. Amer. Jour. Bot. 5:539. 1918.

Uredo roupalae Cumm.: See U. MAURIAE Syd.

UREDO ROUSSELIAE Kern et Whet. Mycologia 18: 40-41. 1926.

UREDO RUBESCENS Arth. Mycologia 7: 327. 1915.

UREDO SABICEICOLA Arth. Mycologia 7: 323-324. 1915.

Uredo saphena Arth. et Cumm.: See PUCCINIA MACROPODA Speg.

Uredo sapotae Arth. et J. R. Johnston: See SCOPELLA SAPOTAE Mains

UREDO SAUVAGESIAE Arth. Mycologia 8: 23. 1916.

UREDO SAVIAE Arth. et J. R. Johnston Mem. Bull. Torr. Bot. Club 17: 168. 1918.

\*\*UREDO SCABIES Cke. Grevillea 15: 18. 1886.

On Vanilla pfaviana Reichb. f. and Vanilla sp.: Mexico, Nicaragua, Panama (intercepted by the Plant Quarantine Service).

UREDO SPARGANOPHORI P. Henn. Hedwigia 43: 160. 1904.

UREDO SPHACELICOLA Diet. et Holw. in Diet. Erythea 1: 248. 1893.

UREDO SPIGELIAE (Arth.) Cumm. Mycologia 48: 608. 1956.

Coleosporium spigeliae Arth. Bull. Torr. Bot. Club 51: 51. 1924.

Telia unknown.

UREDO SPIROSTACHYDIS Arth. Bull. Torr. Bot. Club 37: 576. 1910.

\*\*UREDO STENOCHLAENAE Cumm. Bull. Torr. Bot. Club 79; 232. 1952. On Stenochlaena vestita (Fourn.) Underw.: Honduras.

UREDO SUSPECTA Jacks. et Holw. in Arth. Mycologia 10: 150. 1918.

\*\*UREDO TOROIANA Kern Mycologia 20: 76. 1928.
On Vernonia cinerea L.: Dominican Republic.

UREDO TRICHELIAE Arth. Mycologia 9: 90. 1917.

\*\*UREDO TRIGONIAE Mains Contrib. Univ. Mich. Herb. 1: 17. 1939. On Trigonia floribunda Oerst.: British Honduras.

UREDO TRINIOCHLOAE Arth. et Holw. in Arth. Amer. Jour. Bot. 5:538. 1918
Puccinia triniochloae Barth. Handbook No. Amer. Ured. Ed. 1, p. 169.
1928. Telia unknown.

UREDO UNCINATA Kern, Cif. et Thurston Ann. Mycol. 31: 27. 1933.

On Dorstenia drakena L., Dorstenia sp.: Dominican Republic, Honduras.

Uredo unilateralis Arth.: See POLIOMA UNILATERALIS (Arth.) J. W. Baxter et Cumm.

UREDO VICINA Arth. Mycologia 7: 325. 1915.

UREDO WILSONII Arth. Bull. Torr. Bot. Club 37: 577. 1910.

\*\*UREDO XYRIDIS Mains Contrib. Univ. Mich. Herb. 1:17. 1939. On Xyris sp.: British Honduras.

\*\*UREDO YUCATANENSIS Mains Contrib. Univ. Mich. Herb. 1: 17. 1939. On Mimosa albida Humb. et Bonpl.: British Honduras.

UREDO ZEUGITES Arth. et Holw. in Arth. Amer. Jour. Bot. 5: 538. 1918.

Puccinia zeugites Barth. Handbook No. Amer. Ured. Ed. 1, p. 175.

1928. Telia unknown.

UROMYCES ABBREVIATUS Arth. Bull. Torr. Bot. Club 42: 587. 1915.

UROMYCES ACUMINATUS Arth. Bull. Minn. Acad. 2:35. 1883.

Arthur (Manual Rusts U. S. and Canada, p. 168. 1934.) lists four varieties based on host differences and minor morphological differences in telial spores: <u>U. acuminatus magnatus (Arth.)</u> J. J. Davis, <u>U. acuminatus polemonii (Pk.)</u> J. J. Davis, <u>U. acuminatus steironematis (Arth.)</u> J. J. Davis.

UROMYCES AEGOPOGONIS Diet. et Holw. in Holw. Bot. Gaz. 24: 25, 1897.

UROMYCES AEMULUS Arth. Bull. Torr. Bot. Club 38: 373. 1911.

UROMYCES AFFINIS Wint. Hedwigia 24: 259. 1885.

On <u>Hypoxis erecta L.</u>: Missouri. Other specimens referred here (No. Amer. Flora 7: 755. 1926) belong with <u>Uromyces necopinus Cumm</u>, and <u>Uredo hypoxidis</u> P. Henn. (q. v.).

UROMYCES AGNATUS Arth. Bull. Torr. Bot. Club 38: 378. 1911.

Uromyces alopecuri Seym. : See UROMYCES DACTYLIDIS Otth

UROMYCES AMERICANUS Speg. Anal. Mus. Nac. Buenos Aires 19: 310. 1909.

On Scirpus americanus Pers., S. californicus (Mey.) Britt., S. validus Vahl.:
Canada, U.S.A., Bermuda. Segregated from U. scirpi Burr.

UROMYCES AMOENUS Syd. Ann. Mycol. 4:28. 1906.

UROMYCES AMPHIDYMUS Syd. Ann. Mycol. 4:29. 1906

UROMYCES ANDROPOGONIS Tracy Jour. Myc. 7: 281. 1893.

UROMYCES ANTHACANTHI Jacks. in Seaver Mycologia 16: 47. 1924.

UROMYCES ANTIGUANUS Cumm. Bull. Torr. Bot. Club 67: 612. 1940.

On Desmodium orbiculare Schlecht.: Guatemala. Segregated from U. hedysaripaniculati (Schw.) Farl.

\*\*UROMYCES APHELANDRAE Syd. Ann. Mycol. 23: 311. 1925.
On Aphelandra pectinata Willd.: Costa Rica.

UROMYCES APIOSPORUS Hazsl, Ungar, Akad, Wiss, 10:44, 1873.

Uromyces appendiculatus (Pers.) Lk.: See UROMYCES PHASEOLI (Pers.) Wint.

UROMYCES ARCHERIANUS Arth. et Fromme Torreya 15: 261. 1915.

- UROMYCES ARGUTUS Kern Torreya 11: 214. 1911.
- UROMYCES ARISTIDAE Ell. et Ev. Jour. Myc. 3: 56. 1887.
- UROMYCES ARI-TRIPHYLLI (Schw.) Seeler Rhodora 44: 174. 1942.

  Uredo caladii Schw. Schr. Nat. Ges. Leipzig 1: 71. 1822.

  Puccinia ari-triphylli Schw. Trans. Amer. Phil. Soc. II. 4: 297. 1832.

  Uromyces caladii Farl. in Ell. No. Amer. Fungi, No. 232. 1879.
- UROMYCES ARMERIAE Lév. ex Kickx Fl. Crypt. Flandres 2: 73. 1867.

  Caeoma armeriae Schlecht. Fl. Berol. 2: 126. 1824. See NOTE 1, p. 110.

  See also U. limonii (DC.) Lév. and U. limonii-caroliniani Savile et Conners
- UROMYCES ARMERIAE Lév. subsp. HUDSONICUS Savile et Conners Mycologia 43: 190. 1951.
  - On Armeria maritima var. labradorica (Wallr.) Lawrence: Canada.
- UROMYCES ARMERIAE Lév. subsp. PACIFICUS Savile et Conners Mycologia 43: 191. 1951.
  - On Armeria maritima Willd.: California, Oregon, British Columbia.
- UROMYCES ASCLEPIADIS Cke. Grevillea 5: 152. 1877.

  Uredo asclepiadis Schw. ex Berk. et Curt. Jour. Acad. Sci. Phil. II 2: 282.

  1853. See NOTE 1, p. 110.
- UROMYCES AUREUS Diet. et Holw. in Diet. Hedwigia 32:30. 1893.
- UROMYCES BAUHINIICOLA Arth. Bot. Gaz. 39: 389, 1905.
- UROMYCES BECKMANNIAE Jacks. Brooklyn Bot. Garden Mem. 1: 274. 1918.
- \*\*UROMYCES BERMUDIANUS Cumm. Bull. Torr. Bot. Club 68: 470. 1941.
  On Cyperus paniculatus Rottb.: Bermuda.
  - UROMYCES BETAE Tul. ex Kickx Fl. Crypt. Flandres 2: 74. 1867.

    Uredo betae Pers. Syn. Meth. Fung. p. 220. 1801. See NOTE 1, p. 110.

    Uromyces betae Lév. Ann. Sci. Nat. III, 8: 375. 1847. Telia not described.

    Uromyces betae Tul. Ann. Sci. Nat. IV, 2:89. 1854. Telia not described.

    Uredo betaecola Belk. ex West. Bull. Acad. Roy. Belg. II, 11: 650. 1861.

    Hylander, Jørstad and Nannfeldt (loc. cit. p. 87.) note that the type of Uredo betaecola contains telia. A transfer to Uromyces might be based on this fact, but we prefer to maintain the established name for the common beet rust fungus.
  - UROMYCES BICOLOR Ell. ex Coville Contrib. U. S. Nat. Herb. 4: 231. 1893.
  - UROMYCES BIDENTICOLA Arth. Mycologia 9: 71. 1917.
    Uredo bidentis P. Henn. Hedwigia 35: 251. 1896.
    Uredo bidenticola P. Henn. Hedwigia 37: 279. 1898. See NOTE 1, p. 110.
  - UROMYCES BIDENTIS Lagh. Bull. Soc. Myc. France 11: 213, 1895.
- \*\*UROMYCES BONARIENSIS Speg. Anal. Soc. Cien. Argent. 10: 133. 1880.

  On Gomphrena tuerckheimii (Vatke) Uline et Bray, Gomphrena sp.: Guatemala,
  Nicaragua.
  - UROMYCES BOUVARDIAE Syd. Ann. Mycol. 1:16. 1903.
  - UROMYCES BRODIAEAE Ell. et Hark. Bull. Calif. Acad. 1:28, 1884.
  - Uromyces caladii (Schw.) Farl.: See U. ARI-TRIPHYLLI (Schw.) Seeler

\*\*UROMYCES CALOPOGONII Cumm. Bull. Torr. Bot. Club 70: 80. 1943.
On Calopogonium galactioides (H. B. K.) Benth.: Guatemala.

Uromyces caryophyllinus (Schrank.) Wint.: See U. DIANTHI Niessl

UROMYCES CELOSIAE Diet. et Holw, in Holw, Bot. Gaz. 31: 326. 1901.

UROMYCES CESTRI Mont. in Gay Hist. Fis. Polit. Chile 8: 49. 1852.

Aecidium cestri Mont. Ann. Sci. Nat. II, 3: 356. 1835.

Uromyces cestri Lév. Ann. Sci. Nat. III, 8: 371. 1847. (Nomen nudum).

On Cestrum diurnum L.: Florida.

Uromyces chenopodii (Duby) Schroet.: See U. GIGANTEUS Speg.

UROMYCES CLAYTONIAE Cke. et Pk. in Pk. Ann. Report N. Y. State Mus. 29: 50. 1878.

Has been cited in error as U. claytoniae G. W. Clint. et Pk.

UROMYCES CLIGNYI Pat. et Har. Jour. de Bot. 14: 237. 1900.

UROMYCES CLITORIAE Arth. Bot. Gaz. 39: 389. 1905.

UROMYCES COLOGANIAE Arth. Bot. Gaz. 39: 387, 1905.

UROMYCES COLORADENSIS Ell. et Ev. Erythea 1: 204. 1893.

UROMYCES COLORADENSIS Ell. et Ev. var. CAMPESTER Arth. Manual Rusts U. S. and Canada, p. 301. 1934.

UROMYCES COLORADENSIS Ell. et Ev. var. MARITIMUS Arth. Manual Rusts U. S. and Canada, p. 301. 1934.

UROMYCES COLORADENSIS Ell. et Ev. var. MONTANUS Arth. Manual Rusts U. S. and Canada, p. 301. 1934.

UROMYCES COLUMBIANUS Mayor Mem. Soc. Neuch. Sci. Nat. 5: 467. 1913.

UROMYCES COLUTEAE Arth. Bull. Torr. Bot. Club 37: 574. 1910.

Probably belongs in the collective species <u>U. pisi</u> (DC.) Otth as treated by Hylander, Jørstad, and Nannfeldt (loc. cit. p. 93).

\*\*UROMYCES COMEDENS Syd. Monogr. Ured. 2: 37. 1910.

On Jasminum (pubescens Willd. ?): Dominican Republic. Imported but perhaps not persisting.

UROMYCES COMMELINAE Cke. Trans. Roy. Soc. Edinb. 31: 342. 1888.
Uredo commelinae Speg. Anal. Soc. Cien. Argent. 9: 172. 1880.
See NOTE 1, p. 110.

UROMYCES COMPACTUS Pk. Bot. Gaz. 7: 56. 1882.

UROMYCES COORDINATUS Arth. Bull. Torr. Bot. Club 48: 33. 1921.

UROMYCES COSTARICENSIS Syd. Ann. Mycol. 23: 312. 1925.
On Lasiacis spp.: Costa Rica. Segregated from U. leptodermus Syd.

UROMYCES CUCULLATUS Syd. Ann. Mycol. 2:349, 1904.

UROMYCES DACTYLIDIS Otth Mitth. Nat. Ges. Bern 1861; 85, 1861,
Uromyces alopecuri Seym. Proc. Boston Soc. Nat. Hist. 24: 186, 1889.

- UROMYCES DECORATUS Syd. Ann. Mycol. 5: 491. 1907.
- UROMYCES DIANTHI (Pers.) Niessl Verh. Naturf. Ver. Brünn 10: 162. 1872.

  Lycoperdon caryophyllinum Schrank Baier. Flor. 2: 668. 1789. A prestarting point name.

  Under dienthi Pers. Sym. Meth. Fung. p. 332. 1801. (Centains telia)

Uredo dianthi Pers. Syn. Meth. Fung., p. 222. 1801. (Contains telia). Uromyces caryophyllinus Wint. in Rabh. Krypt. Fl. 1:149. 1881.

- UROMYCES DICHROMENAE Dale Myc. Papers Commonw. Myc. Inst. 59:10. 1955.

  Doubtfully reported by Dale (loc. cit. 60:16. 1955.) on <u>Dichromena radicans</u>
  Cham. et Schlecht. from Jamaica.
- UROMYCES DICTYOSPERMA Ell. et Ev. ex Tranzschel Ann. Mycol. 8:12. 1910. Uromyces dictyosperma Ell. et Ev. No. Amer. Fungi No. 2882. 1893. Nomen nudum.
- UROMYCES DOLICHOLI Arth, Bull. Torr. Bot. Club 33: 27, 1906.
- UROMYCES DOLICHOSPORUS Diet. et Holw. in Holw. Bot. Gaz. 31: 327. 1901.
  Poliotelium dolichosporum Mains Bull. Torr. Bot. Club 66: 175. 1939.
- UROMYCES ELEGANS Lagh. Tromsö Mus. Aarsh. 17: 34. 1895.

  Aecidium orobi elegans Berk. Grevillea 3: 61. 1874. See NOTE 1, p. 110.
- UROMYCES ELEOCHARIDIS Arth. Bull. Torr. Bot. Club 33: 514. 1906.
- UROMYCES EPICAMPIS Diet. et Holw. in Holw. Bot. Gaz. 24: 23. 1897.
- UROMYCES ERAGROSTIDIS Tracy Jour. Myc. 7: 281. 1893.
- UROMYCES EUGENTIANAE Cumm. Mycologia 48: 608. 1956. Uromyces gentianae Arth. Bot. Gaz. 16: 227. 1891. (Non Lév. 1847).
- UROMYCES EUPHLEBIUS Syd. Ann. Mycol. 18: 154. 1920.
- UROMYCES EUPHORBIAE Cke. et Pk. in Pk. Ann. Report N. Y. State Mus. 25: 90. 1873.

Uredo proëminens DC. Fl. Fr. 2: 235. 1805.

Uromyces proëminens Pass. in Rabh. Fungi Eur. Exsic. (Ed. Nov.), No. 1795. 1874. Telia not described.

Arthur (Manual Rusts U. S. and Canada, p. 309, 1934.) sets up four "varieties" for the most part on a host basis.

UROMYCES EVASTIGATUS Cumm. Mycologia 31: 173. 1939.

On Phthirusa pyrifolia (H. B. K.) Eichl. : El Salvador. Segregated from  $\underline{U}$  urbanianus P. Henn.

UROMYCES FABAE (Grev.) DBy ex Cke. Grevillea 7: 135. 1879.

Uredo fabae Pers. Neues Mag. Bot. 1: 93. 1794. A pre-starting point name. Uredo viciae-fabae Pers. Syn. Meth. Fung., p. 221. 1801. See NOTE 1, p. 110. Puccinia fabae Grev. Scott Crypt. Flora 1: Tab. 29. 1823. Uromyces fabae DBy. Ann. Sci. Nat. Bot. IV, 20:80. 1863. (Nomen nudum.)

\*UROMYCES GALII- CALIFORNICI Linder Mycologia 30: 668. 1938. On Galium californicum Hook, et Arn.: California.

- UROMYCES GALPHIMIAE Diet. et Holw. in Holw. Bot. Gaz. 24: 25. 1897.
- UROMYCES GEMMATUS Berk, et Curt, in Berk, Jour, Linn, Soc. 10: 357, 1869.

Uromyces gentianae Arth.: See UROMYCES EUGENTIANAE Cumm.

- UROMYCES GERANII (DC.) Lév. Ann. Sci. Nat. Bot. III. 8: 371. 1847.

  Uredo geranii DC. in Lam. et DC. Syn. Pl. Gall., p. 247. 1806.

  (Telia present).

  Uromyces geranii Fr. Summa Veg. Scand., p. 514. 1849.
- UROMYCES GIGANTEUS Speg. Dec. Mycol. Ital. No. 30. 1879.

  Uredo chenopodii Duby Bot. Gall. 2:899. 1830. See NOTE 1, p. 110.

  Uromyces chenopodii Schroet. in Kunze Fungi Sel. No. 214. 1880.

  Uromyces chenopodii-fruticosi Barth. Handbook No. Amer. Ured., ed.
  1, p. 58. 1928.
- UROMYCES GLOBOSUS Diet. et Holw, in Holw, Bot. Gaz. 24: 23. 1897.
- UROMYCES GLYCYRRHIZAE Magn. Ber. Deutsch. Bot. Ges. 8: 383. 1890.
  Uredo leguminosarum glycyrrhizae Rabh. Flora 33: 626. 1850.
  See NOTE 1, p. 110.
- UROMYCES GOUANIAE Kern Mycologia 3: 290. 1911.
- UROMYCES GRAMINICOLA Burr. Bot. Gaz. 9: 188. 1884.
- UROMYCES GUATEMALENSIS Vest: Ark. Bot. 4:20. 1905.
- UROMYCES HALSTEDII deT. in Sacc. Syll. Fung. 7: 557. 1888.
- UROMYCES HARIOTIANUS Lagh. ex Arth. Mycologia 10: 125. 1918.
- UROMYCES HEDYSARI-OBSCURI (DC.) Lév. in Orbigny Dict. Univ. Hist. Nat. 12: 786. 1849.

  Puccinia hedysari-obscuri DC. Syn. Pl. Gall., p. 46. 1806.

  Uromyces hedysari-obscuri Car. et Picc. Erb. Critt. Ital. II, No. 447. 1871
- UROMYCES HEDYSARI-PANICULATI (Schw.) Farl. in Ell. No. Amer. Fungi, No. 246. 1879. See also U. antiguanus Cumm.
- \*UROMYCES HELLERIANUS Arth. Bull. Torr. Bot. Club 31:2. 1904. On Melothria pendula L.: Florida.
- UROMYCES HETERANTHERAE Syd. Monogr. Ured. 2:291. 1910. On Heteranthera reniformis Ruiz et Pav.: Costa Rica.
- UROMYCES HETERODERMUS Syd. Ann. Mycol. 4: 29. 1906.
- UROMYCES HOLWAYI Lagh. Hedwigia 28: 108. 1889.
- UROMYCES HORDEINUS (Arth.) Barth. Handbook No. Amer. Ured. ed. 1, p. 63. 1928.

  Uromyces hordeinus Arth. Manual Rusts U. S. and Canada, p. 177. 1934.
- UROMYCES HOUSTONIATUS Sheldon Torreya 9: 55. 1909.

  Caeoma houstoniatum Schw. Trans. Amer. Phil. Soc. II 4: 293. 1832.

  See NOTE 1, p. 110.
- UROMYCES HYALINUS Pk. Bot. Gaz. 3: 34. 1878.
- Uromyces hyperici (Spreng.) Curt.: See UROMYCES TRIQUETRUS Cke.
- UROMYCES ICTERICUS Cumm. Bull. Torr. Bot. Club 68: 45. 1941.
  On Iresine celosia L.: Guatemala. Segregated from Uromyces iresines Lagh.

Uromyces ignobilis (Syd.) Arth.: See UROMYCES TENUICUTIS McAlp. and U. MAJOR Arth.

UROMYCES ILLOTUS Arth. et Holw. in Arth. Amer. Jour. Bot. 5: 441. 1918.

UROMYCES IMPERFECTUS Arth. Bull. Torr. Bot. Club 47: 472. 1920.

UROMYCES INAEQUIALTUS Lasch ex Rabh. Fungi Eur., No. 94. 1859.

Caeoma silenes Schlecht. Flor. Berol., p. 128. 1824. See NOTE 1, p. 110.

Uromyces silenes Fckl. Jahr. Nass. Ver. Nat. 23-24: 61. 1870.

UROMYCES INDIGOFERAE Diet, et Holw, in Holw, Bot, Gaz, 31: 328, 1901.

UROMYCES INDURATUS Syd. et Holw. in Syd. Ann. Mycol. 1:16. 1903.

Aecidium tweedianum Speg. Anal. Soc. Cien. Argent. 10:11. 1880.

See NOTE 1, p. 110.

Uromyces tweedianus Barth. Handbook No. Amer. Ured. ed. 1, p. 79. 1928.

UROMYCES INTRICATUS Cke. Grevillea 7: 3. 1878.

UROMYCES IRESINES Lagh. ex Syd. Monogr. Ured. 2:227. 1910.

This species is not definitely known from North America.

Guatemalan records are U. ictericus Cumm. The rust on I. elatior probably represents an undescribed species.

Uromyces jacksonii Arth. et Fromme: See UROMYCES MYSTICUS Arth.

UROMYCES JAMAICENSIS Vest. Ark. Bot. 4 (15): 33. 1905.

Uromyces janiphae (Wint.) Arth.: See UROMYCES JATROPHAE Diet. et Holw.

UROMYCES JATROPHAE Diet. et Holw. in Holw. Bot. Gaz. 24:25, 1897. Uredo janiphae Wint. Grevillea 15:86, 1887. See NOTE 1, p. 110. Uromyces janiphae Arth. Mycologia 7:190, 1915.

UROMYCES JONESII Pk. Bot. Gaz. 7: 45. 1882.

UROMYCES JUNCI (Desm.) Tul. Ann. Sci. Nat. IV 2: 146. 1854.

UROMYCES JUNCI-EFFUSI Syd. Monogr. Ured. 2:290. 1910.

UROMYCES KRAMERIAE Long in Arth. Bull. Torr. Bot. Club 45: 143. 1918.

UROMYCES LAPPONICUS Lagh. Bot. Notiser 1890: 274. 1890.

UROMYCES LEPTODERMUS Syd. in Syd. et Butl. Ann. Mycol. 4:430. 1906.

UROMYCES LESPEDEZAE-PROCUMBENTIS (Schw.) Curt. Cat. Pl. No. Car., p. 123. 1867.

UROMYCES LIMONII (DC.) Lév. in Orbigny Dict. Univ. Hist. Nat. 12:786. 1849. See also U. armeriae Lév. and U. limonii-caroliniani Savile et Conners

UROMYCES LIMONII (DC.) Lév. var. ARMERIAE Arth. Manual Rusts U. S. and Canada, p. 252. 1934.

UROMYCES LIMONII-CAROLINIANI Savile et Conners Mycologia 43: 193. 1951.

On Limonium carolinianum Walt.: Canada, Mississippi. Segregated from Uromyces limonii (DC.) Lév.

UROMYCES LINEOLATUS (Desm.) Schroet. in Rabh. Fungi Eur. No. 2077. 1876.

Uredo scirpi Cast. Cat. Pl. Marseille, p. 214. 1845.

Puccinia lineolata Desm. Ann. Sci. Nat. Bot. III, 11: 273. 1849.

Uromyces scirpi Burr. Bot. Gaz. 9: 188. 1884.

UROMYCES LUPINI Berk, et Curt. Proc. Amer. Acad. Sci. 4: 126, 1858.

UROMYCES LYCOCTONI (Kalchbr.) Trott. Fl. Ital. Crypt. 1: 64. 1908.

Uredo lycoctoni Kalchbr. Math. Term. Közlem. 3: 306. 1865. The type has telia.

UROMYCES MACULANS (Pat.) Arth. Mycologia 10: 124. 1918.

UROMYCES MAJOR Arth. Bull. Torr. Bot. Club 38: 377. 1911.
Uromyces ignobilis Arth. sensu Arth. Manual Rusts U. S. and Canada,
p. 137. 1934.

On Muhlenbergia reverchonii Vasey: Texas; and Muhlenbergia sp.: Mexico.

UROMYCES MARTINII Farl. Proc. Amer. Acad. Sci. 18:78. 1883.

UROMYCES MAYORII Tranz. ex Mayor Mem. Soc. Neuch. Sci. Nat. 5: 463. 1913.

\*UROMYCES MEXICANUS Diet. et Holw. in Holw. Bot. Gaz. 24:24. 1897. On Desmodium sp.: New Mexico.

UROMYCES MINIMUS J. J. Davis Bot. Gaz. 19: 415. 1894.

UROMYCES MINOR Schroet. in Cohn Krypt, Fl. Schles. III. 1:310. 1887.

UROMYCES MINUTUS Diet. ex Atk. Bull. Cornell Univ. 3: 21. 1897.

UROMYCES MIURAE Syd. Ann. Mycol. 11: 94. 1913.

UROMYCES MONTANOAE Arth. et Holw. in Arth. Mycologia 10: 127. 1918.

UROMYCES MONTANUS Arth. Bot. Gaz. 39: 386. 1905.

UROMYCES MYRSINES Diet. Hedwigia 36: 26. 1897.

UROMYCES MYSTICUS Arth. Bull. Torr. Bot. Club 38: 377. 1911. Uromyces jacksonii Arth. et Fromme Torreya 15: 260. 1915.

UROMYCES NECOPINUS Cumm. Bull. Torr. Bot. Club 68: 46. 1941.

On <u>Hypoxis</u> <u>hirsuta</u> (L.) Cov.: Connecticut, New York. Segregated from <u>Uromyces</u> affinis Wint.

UROMYCES NEUROCARPI Diet. Hedwigia 34: 292. 1895.

UROMYCES NERVIPHILUS (Grog.) Hotson Publ. Puget Sound Biol. Sta. Univ. Wash. 4: 368. 1925.

\*UROMYCES OAXACANUS Diet. et Holw. in Holw. Bot. Gaz. 31: 327. 1901. On Jatropha angustidens (Torr.) Muell.-Arg.: Arizona.

UROMYCES OBLONGISPORUS Ell. et Ev. Bull. Torr. Bot. Club 25: 507. 1898.

UROMYCES OCCIDENTALIS Diet. Hedwigia 42 (Beibl.): 98. 1903.

UROMYCES ORNATIPES Arth. Bull. Torr. Bot. Club 42: 586. 1915.

UROMYCES PECKIANUS Farl. Proc. Amer. Acad. Sci. 18: 78. 1883.

UROMYCES PERIGYNIUS Halst. Jour. Myc. 5: 11. 1889.

UROMYCES PHACAE-FRIGIDAE (Wahl.) Hariot Jour. de Bot. 7:376. 1893.

Aecidium phacae-frigidae Wahl. Fl. Lapp., p. 525. 1812. The type contains telia.

UROMYCES PHASEOLI (Reben.) Wint. in Rab. Krypt. Fl. 1: 157. 1881.

Uredo appendiculata phaseoli Pers. Syn. Meth. Fung., p. 222. 1801.

Puccinia phaseoli Reben. Prodr. Fl. Neom., p. 356. 1804.

Hylander, Jørstad, and Nannfeldt (loc. cit. p. 86) cite this species as

Uromyces appendiculatus (Pers.) Unger. Unger (Exanthema Pfl., pp. 277-282.

1833.) mentions Uredo appendiculata Pers. (p. 279), but does not use the name

Uromyces appendiculatus. Hence Unger cannot be cited as the authority on the basis of this reference. In a later publication (Einfl. Bodens, p. 216. 1936) Unger does use the binomial Uromyces appendiculatus but it applies obviously to U. fabae since he lists only Vicia spp. as hosts, hence it cannot apply to the rust on Phaseolus.

UROMYCES PIANHYENSIS P. Henn. Hedwigia 47: 266. 1908.

UROMYCES PISI (DC.) Otth Mitth. Naturf. Ges. Bern 1863: 87. 1863.

Hylander, Jørstad and Nannfeldt (loc. cit. pp. 93-95) bring together under

U. pisi as a collective name "various closely allied leguminous rust races, usually considered as species." Of these, two, Uromyces punctatus Schroet. and U. striatus Schroet., occur in North America and are considered in due course in this check list.

U. pisi as such is not reported for the area.

UROMYCES PLUMBARIUS Pk. Bot. Gaz. 4: 127. 1879.

\*\*UROMYCES POLIOTELIS Syd. Ann. Mycol. 23: 313. 1925. On Anguria sp.: Costa Rica.

Uromyces polygoni (Pers.) Fckl.: See U. POLYGONI-AVICULARIAE (Pers.) Karst.

UROMYCES POLYGONI-AVICULARIS (Pers.) Karst. Bidr. Känned. Finl. Nat. Folk 4:12. 1879.

Puccinia polygoni Pers. Neues Mag. Bot. 1: 119, 1794. Pre-starting point name.

Puccinia polygoni-aviculariae Pers. Syn. Meth. Fung., p. 227. 1801. Uromyces polygoni-avicularis Otth Mitth. Naturf. Ges. Bern 1861; 73. 1861. (Nomen nudum)

Uromyces polygoni Fckl. Jahrb. Nass. Ver. Nat. 23-24: 64: 1870. A rejected name. See Art. 65(2) of the Code.

UROMYCES POLYMNIAE Diet. et Holw. in Holw. Bot. Gaz. 31: 327. 1901. Uredo polymniae P. Henn. Hedwigia 38 (Beibl.): 129. 1899. See NOTE 1, p. 110.

UROMYCES PONTEDERIAE Gerard Bull. Torr. Bot. Club 6: 31, 1875.

Uromyces pressus Arth. et Holw.: See MARAVALIA PRESSA (Arth. et Holw.) Mains

UROMYCES PRIMAVERILIS Speg. Anal. Soc. Cien. Argentina 12: 72. 1881.

UROMYCES PROBUS Arth. Bull. Torr. Bot. Club 38: 376. 1911.

Uromyces proëminens (DC.) Pass.: See U. EUPHORBIAE Cke. et Pk.

UROMYCES PSORALEAE Pk. Bot. Gaz. 6: 239. 1881.

Arthur (Manual Rusts U. S. and Canada, p. 244-245. 1934.) sets up under this species Uromyces psoraleae Pk. var. typica Arth. and  $\overline{U}$ . psoraleae Pk. var. argophyllae (Seym.) Arth. based on host differences and minor morphological characters of the teliospores.

UROMYCES PUNCTATUS Schroet. Abh. Schles. Ges. Vaterl. Cult. Nat. Abth. 1869-72:10. 1870.

See Uromyces pisi (DC.) Otth

UROMYCES PUNCTIFORMIS Syd. Ured. Exsic. No. 1513. 1901.

UROMYCES PUTTEMANSII Rangel Arch. Mus. Nac. de Janeiro 18: 159. 1916. Uromyces sepultus Mains Carnegie Inst. Wash. Publ. 461: 99. 1935. On Setaria spp. Segregated from U. leptodermus Syd.

Uromyces pyriformis Cke.: See U. SPARGANII Cke. et Pk.

UROMYCES RHYNCHOSPORAE Ell. Jour. Myc. 7: 274. 1893.

UROMYCES RICKERIANUS Arth. Bull. Torr. Bot. Club 29: 227. 1902.

UROMYCES RUDBECKIAE Arth. et Holw. in Arth. Iowa Agric. Coll. Bull. 1884: 154. 1885.

UROMYCES RUELLIAE Holw. Ann. Mycol. 2:394. 1904.

UROMYCES SABINEAE Arth. Mycologia 9: 69. 1917.

UROMYCES SALMEAE Arth. et Holw. in Arth. Amer. Jour. Bot. 5:445. 1918.

UROMYCES SCILLARUM (Grev. ex Berk.) Lév. Ann. Sci. Nat. III, 8: 376. 1847.
Uredo scillarum Grev. ex Berk. in Smith Engl. Flora 5: 376. 1836.
The type here contains telia.
Uromyces scillarum Wint. in Rabh. Krypt. Fl. 1: 142. 1881.

Uromyces scirpi (Cast.) Burr.: See U. LINEOLATUS (Desm.) Schroet.

UROMYCES SCLERIAE P. Henn. Hedwigia 38 (Beibl.): 67. 1899.

UROMYCES SENECIONICOLA Arth. Bot. Gaz. 40, 198, 1905.

Uromyces sepultus Mains: See U. PUTTEMANSII Rangel

UROMYCES SHEARIANUS Arth. Bull. Torr. Bot. Club 46: 120. 1919.

Uromyces silenes (Schlecht.) Fckl.: See U. INAEQUIALTUS Lasch

UROMYCES SILPHII Arth. Jour. Myc. 13: 202. 1907.

Aecidium compositarum silphii Burr. in DeT. in Sacc. Syll. Fung. 7: 798. 1888. See NOTE 1, p. 110.

UROMYCES SOCIUS Arth. et Holw. in Arth. Amer. Jour. Bot. 5: 437. 1918.

UROMYCES SOLANI Diet. et Holw. in Holw. Bot. Gaz. 24: 24. 1897.

Uromyces solidaginis (Sommerf.) Niessl: See U. SOMMERFELTII Hylander, Jørstad, et Nannf.

UROMYCES SOMMERFELTII Hylander, Jørstad, et Nannf. Opera Bot. 1:96. 1953. Caeoma solidaginis Sommerf. Supplem. Fl. Lapp., p. 234. 1826. The type here contains telia.

Uromyces solidaginis Niessl Verh. Naturf. Ver. Brünn 10: 163. 1872. (Non Fckl., 1860).

UROMYCES SPARGANII Cke. et Pk. in Pk. Ann. Report N. Y. State Mus. 26:77. 1874.

Uromyces pyrformis Cke. in Pk. Ann. Report N. Y. State Mus. 29:69. 1878.

According to Parmelee and Savile (Mycologia 46:823-836. 1954) this species produces aecia on Hypericum spp.

UROMYCES SPECIOSUS Holw. Ann. Mycol. 3:23. 1905.

UROMYCES SPERMACOCES (Schw.) Curt. Cat. Fl. No. Car., p. 123. 1867.

UROMYCES SPOROBOLI Ell. et Ev. Proc. Acad. Sci. Phil. 1893; 155. 1893.

Uromyces spragueae Hark,: See UROMYCES UNITUS Pk. subsp. SPRAGUEAE
(Hark.) Savile

UROMYCES STANDLEYANUS Arth. Bull. Torr. Bot. Club 51: 57. 1924.

UROMYCES STRIATUS Schroet. Abh. Schles. Ges. Vaterl. Cult. Nat. Abth. 1869-72:11. 1870.

Hylander, Jørstad, and Nannfeldt treat this as a form of U. pisi (DC.) Otth. Arthur (Manual Rusts U. S. and Canada, pp. 301, and 302. 1934.) sets up the varieties U. striatus medicaginis (Pass.) Arth. and U. striatus loti (Blytt) Arth., based on host differences and "only slight morphologic differences."

UROMYCES SUKSDORFII Diet. et Holw. in Diet. Erythea 3:77. 1895.

UROMYCES TENUICUTIS McAlp. Rusts of Australia, p. 87. 1906.

Uredo ignobilis Syd. Ann. Mycol. 4:444. 1906. See NOTE 1, p. 110.

Uromyces ignobilis Arth. Mycologia 7:181. 1915. Telia not described.

For hosts and distribution see under Nigredo ignobilis (Syd.) Arth. (No. Amer. Flora 7:746. 1926) except for Muhlenbergia reverchonii, for which see U. major Arth.

UROMYCES TENUISTIPES Diet. et Holw. in Holw. Bot. Gaz. 24: 25. 1897.

UROMYCES TRANZSCHELH Syd. in Tranz. Ann. Mycol. 8: 20, 1910.

Uromyces tricholaenae Gonz. Frag. et Cif.: See PUCCINIA LEVIS (Sacc. et Bizz.)
Magn.

UROMYCES TRIFOLII (Hedw. f. ex DC.) Lév. Ann. Sci. Nat. III, 8: 371. 1847.

Puccinia trifolii Hedw. f. ex DC. Fl. Fr. 2: 225. 1805.

Aecidium trifolii-repentis Cast. Obs. Pl. Acotyl. 1: 33. 1842.

See NOTE 1, p. 110.

Uromyces trifolii-repentis Liro Acta Soc. Fauna Fl. Fenn. 29 (6): 15. 1906. Telia not described.

Uromyces trifolii-repentis Liro Bidr. Känned Finl. Nat. Folk 65: 94. 1908.

Arthur (Manual Rusts U. S. and Canada, p. 304-305. 1934.) sets up three varieties based on host differences, Uromyces trifolii (Hedw. f. ex DC.) Lév. var. trifolii-repentis (Liro) Arth., Uromyces trifolii (Hedw. f. ex DC.) Lév. var. hybridi (W. H. Davis) Arth., and Uromyces trifolii (Hedw. f. ex DC.) Lév. var. fallens (Desm.) Arth. Hylander, Jørstad, and Nannfeldt (loc. cit. p. 97) prefer to use the binomial Uromyces trifolii-repentis Liro for the first two of these forms and Uromyces fallens Kern for the third. However, the description of Puccinia trifolii and the subsequent transfer to Uromyces appear to be in accordance with the provisions of the Code.

UROMYCES TRIQUETRUS Cke. Proc. Portland Soc. Nat. Hist. 1: 184. 1862. Uredo hyperici Spreng. Syst. Veg. 4: 572. 1827. See NOTE 1, p. 110. Uromyces hyperici Curt. Cat. Pl. No. Car., p. 123. 1867.

Uromyces tweedianus (Speg.) Barth.: See U. INDURATUS Syd. et Holw.

UROMYCES UNIPORULUS Kern Rhodora 12: 125. 1910.

UROMYCES UNITUS Pk. Bull. Torr. Bot. Club 10: 74, 1883.

UROMYCES UNITUS Pk. subsp. UNITUS

This variety set up by Savile, Mycologia 48: 581. 1956, under the provisions of Art. 35 of the Code.

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